

Advancing A New Social Contract For Education

Collaborations to
Reimagine our Futures Together

Edited by

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Foreword

By Stefania Giannini

Assistant Director-General of UNESCO

I am delighted to see the publication of this book in which a group of graduate students at Harvard University use the recently published report of the International Commission on the Futures of Education to identify opportunities for educational improvement in settings across the world.

In publishing ‘Reimagining our Futures Together. A New Social Contract for Education’, this was exactly our ambition. This report is not a blueprint or a roadmap. Informed by wide consultations, it sets out a vision, suggests foundational principles, and offers recommendations for dialogue and action. The course on education policy analysis and research in a comparative perspective led by Professor Reimers, and the experiences analyzed in this book, mark a world first in confronting the Report’s broad recommendations with realities at the local level.

The ambitions that animate our Report are considerable. Aligning education systems so that they can contribute to addressing some of the most significant challenges facing humanity - the risks to human rights, democratic backsliding, poverty, social exclusion or climate change - is a significant undertaking, one that will require resources, capacity, knowledge and partnerships. Universities can indeed make significant contributions to the reimagining of our futures together and to a new social contract for education, through their role in advancing innovation and research and partnering with other educational institutions to collaborate in domains such as reimagining pedagogy, curriculum or the teaching profession.

The collaborations that have produced this book exemplify what is possible, engaging graduate students, as part of their education, as thought partners of education authorities at the

municipal, state or national level. This speaks to the social relevance of universities, and to their indispensable role in guiding and supporting educational policy and change. As a former university professor, myself, I know how transformative education can be when it is authentic and relevant, when it aligns with real world problems and with values that matter to students. This book is an example of the opportunities the report 'Reimagining our Futures Together' provides for university students and professors to make education more relevant. I applaud Professor Reimers, whose intellectual and humanistic contribution as a Commission member was decisive in shaping the Futures report, and his graduate students for this initiative. In so doing, it makes visible that universities are invaluable institutions to helping all of society, indeed all of humanity, in addressing our most pressing challenges and building better futures together.

Chapter One. Introduction

How Universities can Help Transform the Futures of Education

Fernando M. Reimers, Tanya A. Budler, Idia F. Irele, Charles R. Kenyon, Stephanie L. Ovitt and Catherine E. Pitcher

1. Purpose of This Book

This book presents work carried out by students at the Harvard Graduate School of Education examining how to improve education systems around the world, using UNESCO's International Commission on the Futures of Education recent report *Reimagining Our Futures Together: A New Social Contract for Education* (International Commission on the Futures of Education 2021) as an analytic framework. Between September and December of 2021, teams of students in the course *Education Policy Analysis and Research in Comparative Perspective*, partnered with education authorities, school districts, and other large scale systems at the municipal, state and national level in Bogota-Colombia, Ecuador, Israel, Kenya, Guanajuato-, Jalisco-, and Nuevo Leon-Mexico, Mongolia, Nepal, Palestine, Sierra Leone, South Africa, Central Falls-United States, and Uruguay to identify the key education challenges facing students in those systems, the ongoing efforts to address those challenges, and to suggest avenues for improvement based in the application of ideas in UNESCO's report.

This approach to educating students was constructionist in two ways. First, it engaged students in construction of knowledge based on professional practice—the practice of consulting for a government. Second, it constructed the implications of UNESCO's report for a particular jurisdiction, as a result of research and policy dialogue with local stakeholders, as

proposed in the report itself. The course in which the authors of the chapters in this book did this work was taught by the editors, who are the authors of this introduction. We guided students through a series of readings, lectures and discussions covering the fundamentals of policy analysis and of comparative education, and readings focused on system level educational improvement, including curriculum, teacher preparation and support, and leadership. A number of the readings examined education reforms or programmatic efforts to improve systems. Given the comparative and international focus of the course, the readings covered a wide range of countries around the world. The students submitted several papers throughout the term, which gradually built towards the final paper. The chapters in this book are based on those final papers, having benefited from multiple rounds of revision based on feedback from the teaching team, from leaders of practice who served as discussants of these papers at a conference at the end of the course, and from reviews from peers, authors of other chapters in the project.

The authors of the chapters have a wide range of professional experience in the education sector and other industries, including instructional roles as teachers, tutors and mentors at the elementary, high school and college levels in various subjects. They have also held administrative roles in schools, such as director, department head, curriculum specialist, student support, coordinator of technical vocational education as well as administrative roles in universities. Their experience also includes various professional development roles, including for teachers and in leadership programs. They have worked in ministries of education and as policy consultants to governments. Some have worked in multiple roles in education technology companies, including as instructional designers. Some have worked in non-profit organizations, including as founders, CEOs, program directors and managers, education specialists, content specialists, procurement and contract negotiation specialists. Other experience represented in the group of authors includes as consultants in international development organizations and as research assistants in policy think tanks.

Collectively, their professional experience spans the following countries: Andorra, Austria, Bangladesh, Belgium, Botswana, Brazil, Canada, Chile, China, Colombia, Costa Rica, Dominican Republic, Ecuador, Egypt, France, Germany, Ghana, Guatemala, Honduras, India, Israel, Italy, Jordan, Kenya, Kyrgyzstan, Lebanon, Lesotho, Liberia, Mexico, Mongolia, Mozambique, Namibia, Nepal, Nicaragua, Norway, Pakistan, Palestine, Philippines, Qatar, Rwanda, Singapore, South Africa, South Korea, Spain, Swaziland, Uganda, United Arab Emirates, United Kingdom, United States, Vietnam and Yemen.

This book has several goals. The first is to communicate to educators broadly the ways in which UNESCO's report can be used to shape context specific recommendations for the improvement of education systems. The report itself invites such co-construction as a way to animate broad and inclusive participation in defining the specific plans of action that will translate the aspirations of the document into concrete operational strategies. The second goal is to make visible the results of a particular pedagogical approach that integrates learning in action and learning from action in the professional preparation of educators. The third goal is to complete the educational experience of the students who wrote these papers, by bringing their work into public conversation in the broader international policy community.

In this chapter we describe the epistemological roots of the pedagogical approach undergirding this work, we explain why this approach is uniquely suited to advance the goals of UNESCO's report, we summarize the chapters in the book, and we analyze what those chapters reveal about the key themes addressed in UNESCO's report.

1.2 Engaging Students with Real Problems: A Pedagogy of Problem Solving

Inscribed on Karl Marx's grave is the final sentence of his *Eleven Theses on Feuerbach* "Philosophers have hitherto only interpreted the world in various ways; the point is to change it." (1845), the theses were the outline of the first chapter of the book *The German Ideology*. That thesis addresses one of the thorniest

themes in epistemology: the relationship between knowledge and action. The theme is crucial to the field of education because it questions whether conceptual knowledge and procedural knowledge are part of the same or represent distinct knowledge domains, and it questions how they are related to each other, raising fundamental questions such as: Does conceptual knowledge, knowledge of concepts, ideas, *knowledge that*, translate into procedural knowledge, knowledge of how to solve problems based on those ideas, *knowledge how*? Or does procedural knowledge precede conceptual knowledge? Do they develop concurrently? Are they part of the same entity or independent of each other?

A classical view on these questions, known as the ‘intellectualist legend’ is that conceptual knowledge leads to procedural knowledge. In *The Concept of Mind* (1949) Ryle questioned that notion, countering that conceptual and procedural knowledge are different forms of knowledge.

John Dewey also argued that conceptual knowledge followed praxis. In the book *How We Think* (1933) Dewey argues for a pedagogy that engages students in reflective thinking based on practice, an education based on reflecting the work of practitioners. In this book *Experience and Education* (1938), he explained that student experience was essential to understand concepts about democracy, in other words that experiential knowledge was foundational to conceptual knowledge. This argument in favor of hands-on learning turned the conventional relationship between conceptual and procedural knowledge on its head, suggesting that experience, the basis of procedural knowledge, preceded rather than followed conceptual knowledge. Experiential pedagogy is an educational philosophy reflected in a range of education approaches, problem based, project-based education, and was a key tenet of the progressive education movement.

This contested relationship between *knowledge that* and *knowledge how*, between conceptual and procedural knowledge, finds expression also in ways of thinking about university education, and in particular in debates about the pedagogical approaches to prepare people for the professions. A seminal contributor to those debates, Donald Schon (whose doctoral thesis focused on

Dewey's theory of knowledge) argues that professional practice is more than the mere application of conceptual knowledge, knowledge based on science. Schon further posits that professional practice is a form of knowledge creation—knowledge in action—and that reflection upon practice can generate valuable professional knowledge, making visible the implicit knowledge that is created as professionals solve problems. His book *The Reflective Practitioner* (1983) includes a critique of the preparation of professionals in universities where much of the curriculum, and pedagogy, reflects the intellectualist view that sees procedural knowledge as derivative of conceptual knowledge. These views on the importance of experience in the education of professionals undergird a variety of curricular and pedagogical approaches such as internships and other practice-based elements in the curriculum, such as the use of the case method or various forms of engagement of students with the profession and with professionals. A number of universities take these ideas to heart in developing signature pedagogies. The Massachusetts Institute of Technology's motto, 'mens et manus,' which translates to mind and hand, expresses not just the ideals of an education for practical application, but that practical application was an integral part of the educational experience. More recently, Olin College of Engineering—a creation of a number of MIT graduates and former professors—developed a unique approach to the preparation of engineers that prioritized the engagement of students in problems of practice throughout the course of their studies. Increasingly, universities recognize the importance of creating opportunities for students, across all fields of study, to engage deeply with challenges of practice, through curricular and co-curricular experiences. In the United Kingdom, also in the field of engineering and design, a series of innovative institutions of higher education such as the NMITE engineering school, the London Interdisciplinary School and the Engineering and Design Institute are giving preeminent roles to collaborative hands on learning and deep links with industry.

At Harvard, over the last decade, initiatives such as the 'President's Innovation Challenge' an annual competition incentivizing students to create solutions to global pressing problems, have proliferated, and supported by institutional creations such as the Innovation Lab, the Lemann Program in

Creativity and Entrepreneurship, and a growing number of courses on entrepreneurship and innovation.

The chapters in this book are the product of a pedagogical approach that sees engagement in practice as critical to professional preparation, essential to the development of procedural professional knowledge. In the course 'Education Policy Analysis and Research in Comparative Perspective' which the senior author of this chapter has taught at the Harvard Graduate School of Education since 1998, graduate students engage with practice in three ways: the curriculum includes analyses based on real life cases of education reforms and other programs of educational improvement, students participate in discussions with leaders of practice and, finally, students work during the semester on an extended assignment in a context of practice, in which they contribute to solving a challenge of practice. The solutions created by students are then conceptualized and communicated to the profession through open conferences and publications. Over the years, such work has produced books on curriculum aligned with the United Nations Sustainable Development Goals, curriculum to mitigate, revert and adapt to climate change, policy approaches to support large scale education reform and options to mitigate and revert the impact of the COVID-19 pandemic on educational opportunity.

Following Schon's views, that among the most valuable professional skills that learning in practice and from practice can offer is the capacity to frame a problem, students are challenged to 'frame' their own problem, in consultation with the client. Deliberately, there is no textbook that provides an algorithm, or a rubric, to frame the problem, and the teaching team refrains from framing the problem for the students. This is the first challenge of practice they must face, and they must solve it on their own (which they all succeed in doing).

The chapters in this book exemplify how adopting such an approach can result in policy options and strategies to help education authorities around the world make education more relevant. Engaging students with their field of practice in this way is not just beneficial for their education, helping them develop valuable professional competencies, since many

education authorities lack the time and the resources to engage in systematic policy analysis of this sort, given other pressing demands, this type of assistance from the higher education community is welcome. The beneficiaries of this type of articulation of education with real world problem solving are not just students and their clients, but also faculty members and universities. Engagement with practice through teaching, helps faculty members remain connected to the field, inspiring questions for research and writing which are grounded in real problems practitioners face. Universities benefit as well when they mobilize their capacity in service of society, in this case supporting public education, because this is aligned with their mission of contributing to societal improvement, a goal of modern universities since the enlightenment.

1.3 The Futures of Education Report: The Need for Institutional Capacity to ‘Translate’ this Report into context specific strategies

In its seventy-seven-year history, UNESCO has thrice established a commission of independent experts to examine the implications of societal trends for education and to offer recommendations to education authorities for the improvement of public education systems. The first two reports, widely disseminated through a variety of publications and convenings organized by UNESCO, the United Nations system and partner governments, became frameworks which guided education reform efforts of national systems and other partners over decades following their publication.

First, the Commission on the Development of Education was established in 1968, when former French minister of education Edgar Faure, was asked by Rene Maheu, Director of UNESCO, to lead a group including Felipe Herrera, Abdul Razzak Kaddoura, Henri Lopes, Arthur Petrovsky, Majid Rahnema and Frederick Ward. The report they produced: *Learning to be: the world of education today and tomorrow* (Faure et al. 1972), underscored the necessity of lifelong learning, in a world continuously changing, and the importance of preparing students at the fundamental levels of education with the skills

for learning throughout their lives. The report foresaw the development of a 'learning society' in which the necessity and the opportunities to learn for all would be ubiquitous. The report's main thesis was a departure from the emphasis on conceptual knowledge which dominated the curriculum of elementary education in much of the world until 1972, when the report was published, in underscoring the importance of the development of self-knowledge and self-management skills that would prepare all people to become architects of their own lifelong learning, and consequently of their lives.

Second, the International Commission on Education for the Twenty-first Century was established in 1992 when former President of the European Commission Jacques Delors, was asked by UNESCO's Director Federico Mayor to lead a global group of educators including In'am Al Mufti, Isao Amagi, Roberto Carneiro, Fay Chung, Bronislaw Geremek, William Gorham, Aleksandra Kornhauser, Michael Manley, Marisela Padrón Quero, Marie-Ang, Plique Savane, Karan Singh, Rodolfo Stavenhagen, Myong Won Suhr, and Zhou Nanzhao. The report: *Learning: The Treasure Within* (Delors, 1996) emphasized the importance of developing capabilities in four domains: conceptual knowledge (learning to know), procedural knowledge (learning to do), self-knowledge (learning to be) and relational knowledge (learning to live together). The report emphasized the importance of preparing people for democratic participation and for constructive engagement across differences, in a world increasingly interdependent, and where various processes of globalization would increase the cultural and ethnic diversity of many cities, and with it the opportunities and necessity for cross-cultural and cross-ethnic interaction and collaboration.

These two reports were very much written for an audience of senior education decision makers, well represented by those ministers of education attending the general conferences convened by UNESCO where those reports were presented. Both reports assumed that governments could mandate educational change from the top. In both of them the challenges of implementing educational change are virtually omitted, beyond emphasizing—in the case of the Delors report—the

important role of teachers and of governance in the process of educational change.

In September of 2019, UNESCO Director Audrey Azoulay asked President of the Federal Democratic Republic of Ethiopia, President Sahle-Work Zewde to lead a commission that would prepare a report on the Futures of Education. The commission included Masanori Aoyagi, Arjun Appadurai, Patrick Awuah, Abdel Basset Ben Hassen, Cristovam Buarque, Elisa Guerra, Badr Jafar, Doh-Yeon Kim, Justin Yifu Lin, Evgeny Morozov, Karen Mundy, António Nóvoa, Fernando M. Reimers, Tarcila Rivera Zea, Serigne Mbaye Thiam, Vaira Vike-Freiberga and Maha Yahya.

The report *Reimagining our Futures Together. A New Social Contract for Education*, published in November of 2021, underscores the urgency of aligning education systems with the grand challenges of inequality, poverty and social exclusion, democratic backsliding, challenges to human rights, climate change and the challenges created by artificial intelligence. It proposes the transformation of the culture of education - attending to curriculum, pedagogy, schools, teachers and lifelong learning. As avenues to catalyze those changes, the report focused on research and innovation, universities, international cooperation and solidarity and inclusive democratic dialogue.

One of the ways in which the report differs from the two previous reports is that it presents itself as incomplete work, as an invitation to a global process of dialogue among local stakeholders from which specific operational strategies to transform the culture of education should emerge. The report recognizes the challenges of implementation in educational change, and the importance of local actors, in determining education priorities and strategies suited to particular local contexts. Another way in which the report differs from the two preceding reports is in the role it assigns to universities as agents of the process of educational change. Universities are mentioned in every chapter of the report, as having the potential to collaborate with education systems, forming an education ecosystem, where such collaboration can advance the transformation of curriculum, pedagogy, the teaching profession, schools and lifelong learning.

The work presented in this book is a response to this invitation of *Reimagining Our Futures Together* to university communities. As students and faculty in one university, we partnered with senior leaders in education systems in various jurisdictions to examine the implications of the ideas of that report for a strategy for educational improvement in those contexts. The chapters in this book exemplify what the invitation extended by the International Commission can produce. Our hope in publishing this book is to inspire colleagues, in the more than 28,000 institutions of higher education around the world, to establish similar collaborations with school systems, and to partake in the broad and inclusive dialogue essential to make education more relevant to the challenges humanity faces.

As previously mentioned, such collaboration would not only be valuable to education authorities and other education leaders, enhancing their institutional capacity with the infusion of talent of students and teaching staff, but it would also contribute to the professional preparation of university students, engaging them in a practice of complex problem solving, and in reflection on that practice. At the same time, faculty and universities would benefit from the connection to practice created by this engagement with school systems.

1.4 How the Chapters were Written

The research for these chapters started in the fall of 2021, during the first semester of returning to in-person instruction on Harvard's campus since the beginning of the COVID-19 pandemic. Students in this class participated in face-to-face classes, fully online classes, and in a handful of cases, a combination of the two. These research projects were required assignments in the course on policy analysis described earlier, and students knew that the best papers would be invited to be turned into chapters for a book. Upon completion of the course, invitations to rework the final papers of the course into chapters for this book were sent out right at the peak of the Omicron variant surge in the United States, in early January of 2022.

In their research, the authors of these chapters had to identify, in dialogue with their client, the most salient education issues in

the contexts they were studying, as well as ongoing policies to address them. They then had to analyze the reform's theory of action which aids policy makers in understanding the impact of a policy. This usually takes of the form of "if... then..." statements as seen here in Chapter 14 on South Africa:

“If there are collaborative efforts to improve the relevance of the curriculum, *and* teachers are adequately supported to implement the strengthened curriculum in context, *and* structures are put in place to promote teacher autonomy, collaboration, and personalization, *then* there will be improvements in foundational skills, broader competencies, teacher autonomy and professionalism, and system sustainability.”

Based on that analysis, the authors then used UNESCO's report to identify ways to improve the theory of action of ongoing efforts to address education challenges and discussed with their client avenues for further development. Their final papers developed their ideas for improvement, drawing on additional research relevant to the themes chosen, for example research on effective approaches to teacher professional development, or to curriculum reform.

In conducting their analysis, these authors of these chapters followed Bardach's *A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving* (2011), moving through the stages of (1) understanding the context, (2) assembling evidence, (3) constructing policy alternatives, (4) selecting criteria, (5) projecting outcomes, (6) confronting trade-offs, (7) making a decision and (8) telling the story.

Moving through Bardach's eightfold path and the analysis of the theory of action led authors to review hundreds of published and unpublished documents relevant to the context and topics they were studying. Team members interviewed representatives from the education sector spanning from the highest education authorities, as was the case in Chapter 10 where the authors had direct access to the Secretary of Education of Nepal, to countless (and no less significant) conversations with

bureaucrats, program implementation professionals, school administrators, teachers, parents and students. Some authors organized focus groups, such as the case of Jalisco, Mexico, Chapter 7, and others sent out surveys to collect data that informed their analysis such as the case of the team studying Central Falls, United States, in Chapter 15. No observations of classroom instruction or other activities carried out as part of these reforms were conducted. It is important to note that this research was conducted remotely, as authors were based in Cambridge, Massachusetts, at a distance from their clients. There are obvious shortcomings of such physical distance from the context and communities they were studying in terms of accessing nuanced details about the implementation of programs or about education challenges as perceived by local stakeholders. These limitations, and the fact that the clients of the teams conducting the studies were education authorities, results in a distinct 'top down' bias to the policy analysis.

The studies in the book draw on the following type of evidence:

Colombia: Interview with ministry officials and teachers, questionnaires, internal documents, multilateral and international reports, news articles, and scholarly articles were referenced.

Ecuador: Survey results, focus groups, and an internal document review were used.

Israel: Interviews with ministry officials and teachers, a review of published and unpublished documents, and a literature review of best practices on supporting student development of future orientation were referenced.

Kenya: Interviews with members of the Aga Khan Foundation as well as a review of internal documents and relevant literature were used.

Guanajuato, Mexico: Survey results and interviews with ministry officials and teachers were referenced.

Jalisco, Mexico: Focus groups, survey results from 1,888 survey respondents, a review of published and unpublished documents, and interviews with ministry officials, teachers, and a principal were used.

Nuevo León, Mexico: Interviews with teachers, parents, and education leaders, and a review of published and unpublished documents were referenced.

Mongolia: Interviews with ministry officials, administrators, and teachers, a review of published and unpublished documents, multilateral and international reports, and a demographic analysis of population projections were referenced.

Palestine: Interviews with ministry officials, principals, teachers, and community stakeholders, a review of published and unpublished documents, and a review of relevant literature on TVET were used.

Philippines: Interviews with ministry officials, principals and teachers and a review of published and unpublished documents were referenced.

Sierra Leone: Interviews with ministry officials and a review of published and unpublished documents were referenced.

South Africa: A survey of 25 teachers, focus groups, a review of published and unpublished documents, and interviews with teachers, principals, and ministry officials were referenced.

Central Falls, United States: Survey results, focus groups, published and unpublished document review, and a literature review of best practices in emergent bilingual and multilingual education were used.

Uruguay: Interviews with key officials at Plan Ceibal and teachers in the field, as well as a review of published and unpublished documents were referenced.

There are some limitations resulting from the evidence on which the studies drew. First, most of the data collected are based on documents and interviews, which may be subject to bias which could influence their reliability and validity. All of these chapters rely on interviews as a major source of data; thus it is therefore possible that informants' memories of policy development or other key events may be influenced by successive events or the emerging outcomes of the policy's implementation. Additionally, it was not possible to isolate the existing reform efforts from concurrent events, which might have influenced

the findings and therefore led to final policy suggestions that are not in alignment with the system's needs if they had been assessed independently of government's efforts to address them. A predictable incrementalistic tone of the recommendations in these chapters results from these limitations of the sources of information on which the studies are based. None of them propose revolutionary change or dismiss entirely existing efforts of educational improvement, which is arguably pragmatic and realistic, reflecting how much policy analysis is made in the real world, but also somewhat conservative.

A key characteristic of the partnerships that the authors of these chapters established with their clients was its collaborative nature. This commitment to collaboration is true to the spirit of the UNESCO report (indeed, the word "collaboration" is mentioned 61 times in that document, showing up in nearly every chapter). The collaborations represented here took multiple forms. There were times when some students encountered information that was inconsistent with what they had heard from their research partner. Although many of the teams of authors included a member that drew heritage from the region being studied, such as was the case for the chapters written about Israel, Jalisco, Mexico, Mongolia, Nepal, the Philippines, South Africa, and Central Falls, United States, there were also times when, as the rest of the authors were from different contexts than they were studying, their outsider status led them to an awareness of just how differently educator sectors across the globe may operate. These types of situations are inevitable in any transnational partnership, and it is the principles of solidarity, mutual respect, and collaboration, which are so heavily emphasized in the UNESCO report, that are the key to navigating such instances in a way that is most beneficial to students and wider society.

1.5 The clients

The education authorities with whom the authors of the chapters in this book worked were selected among the professional networks of students and faculty in the course. They were not randomly chosen but chosen because pre-

existing relationships facilitated the collaboration. In some cases, but not in all, some members of the team of authors had professional experience in the country for which they were consulting. In only one of the chapters (Jalisco) one of the students who authored the chapter had previously worked for the Secretary of Education.

Some clients represented governments—such as the national or subnational Ministry of Education. Other clients represented more local actors such as district level leadership. And finally, some clients were nongovernmental agencies such as private international development agencies and nonprofits. This diversity of clients from around the world express the multitude of actors that have a role in implementing the vision set out in the UNESCO report.

1.6 Chapter Summaries

In Chapter 2, *Education Reform in Bogotá 2020-2024: Existing Challenges and Recommendations*, the authors examine the overall alignment between education reform ongoing in Bogotá and the vision outlined in the UNESCO report and highlight ways in which additional efforts could enhance the current reform. Drawing on interviews with teachers and District Secretary of Education officials as well as policy documents, reports, and other data, the team provides recommendations for addressing the challenges seen in secondary education enrollment/completion rates, the gap between urban and rural education, and obstacles faced by displaced Venezuelan children.

Chapter 3, *Ecuador and COVID-19: Increasing Rural Education Access*, evaluated the impact of COVID-19 in Zone 5 of Ecuador and offers recommendations on how to improve access to educational opportunities as the COVID-19 pandemic continues to affect this region. Drawing on a survey of teachers as well as focus groups with principals, psychologists and teachers in Zone 5, this chapter offers several actionable recommendations, from the deployment of mobile schools to the creation of new learning support systems, that would

leverage the existing capacity of the Ministry to reach students who have not been able to attend school.

In Chapter 4, *Reimagining Education for Equity: An Analysis of Israel's Etgar Program*, the authors examine a program for at-risk youth through the lens of UNESCO's report and make key suggestions around curriculum, pedagogy and teacher training to improve the program's effectiveness. Specifically, the chapter suggests that Etgar should build teachers' capacity around supporting students' future orientation and survey teachers to get an understanding of the biggest challenges Etgar teachers face so that further development can be tailored to teachers' needs.

Chapter 5, *Responding to COVID-19: Strengthening the Delivery of Gender-Responsive Education in Kenya*, explores the impact of Covid-19 on educational opportunity in Kenya through the lens of the Aga Khan Foundation (AKF) and its Foundations for Learning (F4L) project. The lack of gender-responsive education is noted as a prominent challenge, and one that persists even outside of the pandemic. The chapter then explores a series of policy alternatives that promote gender-responsive education. In conclusion, the chapter recommends a set of policy pivots that enable AKF to build off of its existing capabilities and infrastructure while strengthening the delivery of gender-responsive education.

Chapter 6, *Accelerating the Future of Education in Guanajuato, Mexico, A Comparative Policy Analysis*, reviews the education system in Guanajuato, Mexico with the goal of making recommendations that align with the UNESCO report while advancing the quality of education. With a focus on both Guanajuato's response to the recent COVID-19 pandemic as well as the state's outlined goals for its education system, the chapter provides an integrated analysis of the current state of education in Guanajuato and presents a series of policy alternatives. In conclusion, the chapter recommends accelerated learning as the best option for advancing the quality of education in the State.

In Chapter 7, *Building Shared Vision: Recommendations for The Future of Education in Jalisco in light of the UNESCO Report*, the authors offer a focused analysis of Recrea, an education project in the

state of Jalisco, Mexico that seeks to reconfigure and reform Jalisco's education system by 2040. The authors assess Recrea against UNESCO's 2021 Futures of Education Report. Through secondary research, primary interviews, surveys, focus groups, and concerted collaboration with Jalisco's local education authorities, the authors assessed the current state of education in Jalisco and identified opportunities for Recrea to better align with the UNESCO report to further strengthen education for all students in the state.

Chapter 8, *Nuevo León, Mexico: Engaging Communities, Supporting Educators, and Expanding Learning*, discusses the ways in which the three-pronged reform, intended to reduce educational lag in the state and implemented by the recently appointed Secretary of Education, aligns with the principles outlined in the UNESCO report. Through an examination of the current status of the reform, and in conversation with the administration, the paper highlights cost-effective recommendations that apply UNESCO principles to achieving the administration's goals. Recommendations focus on expanding and supporting the development of ECCE, SEL, and data-responsive pedagogies.

Chapter 9, *Mongolia: Rooting Reform Implementation in Cultures of Collaboration & Accountability*, discusses how Mongolia's newest education law aligns with UNESCO's report and offers suggestions to ensure that these reform efforts are aligned across all elements of Mongolia's education system. In conversation with the Ministry of Education and Science of Mongolia, this chapter uses publications and government documents, along with input from urban and rural Mongolian teachers, teacher surveys, and interviews to craft four recommendations that will improve leadership, teaching development, and the usage of data as Mongolia attempts to align its education goals with its larger reform efforts around Vision 2050.

Chapter 10, *Building Teacher Capacity in Nepal Beyond the COVID-19 Pandemic*, evaluated the impact of COVID-19 on the education system in Nepal and found that it exacerbated pre-existing challenges and created new ones. Based on extensive interviews and a review of the literature, the authors develop a series of recommendations to support teacher competency, accountability, and mindset through reforms to teacher

qualification, pre-service training, in-service training, and the establishment of communities of practice.

In Chapter 11, *Right to Education Throughout Life: Vocational Education as a Tool for Change in Palestine*, the authors examine the state of education in Palestine through the lens of the UNESCO report and focus on the role that strengthening TVET can play in expanding educational opportunity. Based on conversations with members of the Ministry, teachers, members of civil society, and a document review, the team outlines how investment in the TVET system, with a focus on applied learning and holistic assessment, can support increasing the graduation rate and alignment with the labor market.

Chapter 12, *Redefining the Quality of School Environment and Teacher Development in the Philippines through the UNESCO's Futures of Education Report*, explores historical reforms and the current education context in the Philippines, which helps to inform policy recommendations in the areas of teacher professional development and school environment and infrastructure. Recommendations for teacher professional development highlight introducing unified standards to align pre- and in-service training and implementing a system for evaluating teacher effectiveness, accountability, and compensation. School environment recommendations center around both the importance of the physical infrastructure as well as putting plans in place for education in emergencies, such as during natural disasters.

Chapter 13, *Fostering Civic Literacy in Sierra Leone*, examines how Sierra Leone's education system aligns with the UNESCO report, and particularly focuses on reforms in student learning outcomes and teacher professional development as they relate to education quality. Recommendations to the new National Curriculum Framework focus on adding social emotional learning, incorporating new programming, and collecting data to understand the base level of civic literacy across Sierra Leone. Recommendations for teacher professional development involve establishing "communities of practice" while increasing vertical communication and developing comprehensive teacher evaluation plans.

In Chapter 14, *Redressing the past, building the future: Imperatives for South Africa's basic education system*, the authors examine the state of basic education in South Africa, and assess the extent to which South Africa's approach to education aligns with the 2021 UNESCO report, *The Futures of Education*. Taking into account South Africa's recent emergence from legalized racial segregation through Apartheid, as well as the COVID-19 Pandemic, the authors identify key challenges in the South African education system faces and identify opportunities for further alignment with the UNESCO report to build a stronger education system. The authors acknowledge two key areas for improvement: Curriculum and Pedagogy and Teachers and synthesize existing data as well as comparative perspectives to offer five integrated recommendations for strengthening South African Education.

Chapter 15, *Recommendations to Align Central Falls' Multilingual Learner Education Reform with UNESCO's "Reimagining Our Futures Together" Report*, examines the ongoing state and district-wide reform to address multilingual learners (MLL) in the Central Falls, Rhode Island, USA. From this analysis, this chapter proposes a three-prong strategy that would enable the Central Falls School District to better serve its MLL students and families while further aligning with UNESCO's vision. This strategy includes 1) establishing and maintaining a Caregiver-Teacher Design Team, 2) ensuring high quality and sustainable MLL curricula through a bounded autonomy model with teachers and administrators, and 3) developing a co-operative continuum of professional development for teachers.

In Chapter 16, *Uruguay: Rethinking teacher training and global education through Plan Ceibal*, the authors examine Plan Ceibal, an initiative that emerged as a frontrunner in the Uruguayan Education System's effort to increase educational access to all students through technology. Considering both existing education challenges in Uruguay as well as the recent COVID-19 Pandemic, the authors measure Plan Ceibal's approach against UNESCO's 2021 Report, *The Futures of Education*. Through secondary research, surveys, comparative analysis, as well as close collaboration with liaisons at Plan Ceibal and other Uruguayan education authorities, the authors offer an integrated

approach to further strengthening Plan Ceibal and aligning it with UNESCO's vision for a reimagined future of education in Uruguay.

1.7 Early Impacts from the Collaborations

The work of the teams of students consulting with governments in various jurisdictions around the world had the effect of bringing the report *Reimagining the Futures of Education* to their attention, and of modeling how this report could be used as a framework to audit ongoing education initiatives to address education challenges. This process and the products it yielded, the chapters in this book, provided resources to develop an operational strategy to advance the vision of the Futures of Education report in each particular context. The combination of seasoned education authorities and advisors, with graduate students, resulted in a productive combination of deep knowledge of local context with an external comparative perspective.

This collaboration and its products led some of the clients to embrace the Futures of Education Report, and the analytic papers presented in this book, as resources to further policy dialogues.

For example, in Ecuador, the previous Minister of Education, who was invited to discuss the work produced by the graduate students at the final conference of the course, forwarded the recommendations to the current Minister who expressed interest in a conversation about the report with the team.

In Nuevo León, Mexico, the Secretary of Education invited some of the students to intern in her office to discuss the Futures of Education Report with the senior leadership team. The Secretary then organized a statewide conference of all school supervisors focused on the report. As part of an ongoing process of revision of the State's Constitution, the Secretary of Education used the principles of the Futures of Education Report as a foundation for her recommendations to the Governor.

In Jalisco, Mexico, the Secretary of Education invited the team of graduate students to participate in a statewide education conference, and to present the Futures' of Education report to teachers and school administrators. The Secretariat of Education used the chapter prepared by the graduate students to develop an implementation strategy of the recommendations they made and disseminated the report within the entire staff of the Ministry.

For example, in Mongolia, some authors of the chapter presented in this book are now interning for a member of Parliament leading the team working on new education law, and one of the activities is to summarize the Futures of Education report into a slide deck in Mongolian and a video for distribution to all members of Parliament. The same member of Parliament took on to organize an education conference at the National University of Mongolia to discuss the Futures of Education Report in collaboration with a student organization at the Harvard Graduate School of Education created to promote discussions of the Futures of Education report.

In South Africa, the National Education Collaboration Trust, the client for the team of graduate students, expressed interest in further dialogue and dissemination of the chapter produced by the students, including an internal seminar at NECT to explore potential synergies and collaborations across programs to advance the recommendations of the chapter.

In Uruguay, the chapter produced by the team of graduate students was used by the President of Plan Ceibal, the client for this team, and the director general of the Ministry, as inputs to an education reform in the making. The team of graduate students was invited to share their findings at a national teacher training program.

1.8 UNESCO's Report and Pre-existing Efforts: The Alignment between these Reforms and UNESCO's Vision

As explained earlier, the strategy followed by the authors of the chapters in this book involved first examining the most critical education issues in the jurisdictions they were studying. This was

done drawing on conversations with their client, with other educators in those jurisdictions, and on existing reports and research. They then examined ongoing efforts to address those challenges, to then propose ways in which those efforts could be modified or enhanced, drawing on the ideas for change of pedagogy, curriculum, teaching profession, schools and lifelong learning proposed in UNESCO's report. The challenge of the teams was to draw on those ideas which in the report are developed at a fairly high level of generality, and then use research on the specific local context in which they were working, as well as further research relevant to the options for improvement highlighted in their study, to make specific recommendations.

This approach revealed that, in most cases, pre-existing efforts to address education challenges already contained elements of the approach to educational transformation proposed in UNESCO's report. Many of the ongoing efforts involved professional development or curriculum revisions. As such, UNESCO's framework could be used to propose incremental improvements to the ongoing efforts, rather than radical departures from ongoing work. Nevertheless, none of the preexisting reforms simultaneously addressed all five elements proposed in UNESCO's framework, and the authors of these chapters did not suggest that improvement efforts should adopt a comprehensive focus on all of them either. Instead, the chapters' authors selected one or two of the five areas for improvement in UNESCO's report, as they fit the local context in terms of the preexisting challenges and efforts to address them and fleshed out ways to deepen those efforts in those domains. In part this may result from the incrementalistic bias resulting from the sources of information discussed earlier.

1.9 The Role of COVID and post-COVID

While the analysis of the educational impact of COVID-19 was not the focus of most of the writing in this book, all the work was completed in the midst of the COVID-19 pandemic, at a time when many countries were beginning to "reopen" but also at a time of great uncertainty. New variants of the virus were

causing alarm and countries were at different levels of preparedness for a prolonged pandemic. Three chapters in particular bring pandemic disruptions to the forefront of their analysis.

The chapter on Ecuador highlights how many children in one of the country's regions, Zone 5, are still lacking access to education two years into the pandemic. The authors' analysis focuses on strategies to bring these students back into the fold and ensure that students all across Zone 5 have the ability to continue their learning.

In Nepal, the issues currently affecting the education system, such as low student achievement and disparities in access to quality education, are the same issues that existed pre-pandemic. The authors working with Nepal outline how the pandemic has exacerbated these challenges for the Ministry of Education, Science, and Technology.

In Central Falls, Rhode Island, the authors found that multilingual learners (MLLs) were disproportionately affected by the pandemic, with standardized test scores in ELA and math dropping by nearly 50% between 2019 and 2021. The authors make recommendations that addressing the root cause of these inequities will allow the district to better serve these students, both as the pandemic continues and in its eventual aftermath.

1.10 How These Chapters Address the Five Core Domains Proposed in UNESCO's Report

As explained earlier, the analysis reported in these chapters adopted an incremental approach to ongoing reform efforts, drawing on the ideas presented in UNESCO's report on curriculum, pedagogy, school organization, the teaching profession and lifelong learning to identify avenues for improvement. None of the chapters embraced a comprehensive view of these five dimensions of educational change, but instead anchored their recommendations for improvement in one or two of them. However, the chapters illustrate what the actual instantiation of UNESCO's recommendations in particular contexts look like. The report is written at a level of generality

to serve as a global framework. This is what renders it universally useful, but insufficiently useful because it does not offer concrete specificity of what these ideas look like in practice. It is this need of ‘translation’ of this report to specific recommendations that fit particular contexts that requires additional analysis and support, and this is exactly the kind of support that the authors of these chapters offered their clients. In this section we illustrate how the ideas of the report translated into specific recommendations in the contexts covered in this book.

1.10.1 Curriculum

The UNESCO report proposes that curricula should be framed and informed by both building competencies and the processes of acquiring knowledge and creating new knowledge. It suggests that curricula should “grow out of the wealth of common knowledge and embrace ecological, intercultural and interdisciplinary learning” to achieve these goals. A number of chapters in this book explore how curricula can be used to support goals such as those outlined by the UNESCO report.

In Sierra Leone, for instance, a new National Curriculum Framework was launched as part of the major reforms taking place to support teaching and learning. This framework makes Civics a compulsory subject, prioritizes learner-centered pedagogy, and explores identity development. The chapter authors recommend ways in which this new framework can be supported and expanded, including recommendations such as prioritizing teacher preparation for implementation of new curricula, and the addition of topics such as Social and Emotional Learning.

In Central Falls, Rhode Island, the authors considered ways to support their clients in ensuring high quality and sustainable curriculum for multilingual learners. The authors make several recommendations, including the establishment of a Teacher-Administration Task Force to develop a shared curricular vision and an increased emphasis on the incorporation of culturally relevant components into multilingual learner education.

The importance of the curriculum and its role in supporting the development of learners in the context of the new social contract described in the UNESCO report cannot be overstated. The content of what is taught to students--what is considered valuable information, where knowledge comes from, and who is given access to it and produces it--is a crucial piece of any education system. Questions around curriculum are woven throughout these chapters, each unique to the context of its system and the learners it serves.

1.10.2 Pedagogy

Pedagogical practices play a central role in UNESCO's vision for education as a tool to transform human societies. The report calls on societies to consider education as an endeavor that not only seeks to develop the minds of future generations, but rather one that is aimed at transforming societies as a whole. Thus, according to the ideological framework undergirding both the UNESCO report and this text, pedagogy should embody principles and practices that encourage students to approach each other and the world with empathy and compassion while empowering students to transform their worlds.

The authors of the Bogotá, Colombia chapter emphasize the importance of pedagogy that is empowering and relevant for Bogotá's many demographic subsets, including internally displaced students and migrant students from Venezuela.

Likewise, the authors of the chapters on Israel and Nepal highlight the importance of pedagogy for ensuring full access to education for all populations. In the case of Israel, the authors highlight the importance of pedagogical support to ensure Israel's Etgar program's success. They emphasize enhanced pedagogy as a key measure for supporting at-risk students.

Similarly, the authors of the Mongolia chapter encourage meaningful pedagogy with a focus on collaboration as Mongolian students prepare to take the international Programme for International Assessment (PISA) exam for the first time in 2022.

The chapter on Sierra Leone fully adopts UNESCO's vision for pedagogy as a tool for society-level transformation. Its authors consider the multiple issues facing contemporary Sierra Leone, –including post-Ebola rebuilding, malnutrition, and sexual health literacy– and contextualize them within the education system's sphere of influence. They suggest a focus on civic education as the cornerstone of a more holistic approach to learning.

It is important to note the relatively recent widespread shift in pedagogical approaches towards addressing both cognitive and psycho-social needs of students at all ages. Since the onset of the COVID-19 pandemic, social emotional learning has proven increasingly indispensable for the full success of education ecosystems. It features in nearly every chapter as a crucial pedagogical approach for rebuilding resilient societies that can withstand adversity and adapt to constantly changing external conditions.

If education systems around the world are indeed students' paths to social, intellectual, and professional fulfillment and global transformation, holistic pedagogy is undoubtedly a vital vehicle, and quality vehicles need quality drivers to successfully complete their course. Thus, the following chapter highlights the crucial role that teachers play in educational transformation, as well as the authors' findings and recommendations regarding the teaching profession.

1.10.3 Teachers and the Profession

The UNESCO report calls for the need to put teachers at the center of any new social contract for education. The report envisions a future of the teaching profession built on collaboration. Many of the chapters in this book specifically address strategies that emphasize and support teachers in their respective areas of study.

The team working in Nepal found that challenges facing the Ministry of Education included a lack of sufficient content knowledge among teachers, as well as insufficient monitoring and evaluation to address these issues. Their chapter makes

recommendations that would improve the professionalization of a teaching career by developing a qualification and evaluation system for new and current teachers, building spaces for teachers to collaborate with each other through “communities of practice,” and to evaluate and reform current teacher preparation programs.

The groups working with the Philippines and Mongolia also suggest pathways for improving teacher preparation. In Mongolia, the importance of providing accredited pre-service teacher training is stressed while in the Philippines, there is a need to align pre-service with in-service training. Both teams offer recommendations on how to improve the number and quality of teachers recruited into their respective workforces.

With a new curriculum framework that emphasizes the importance of teacher autonomy and community, Sierra Leone presents a case with a strong alignment toward UNESCO’s vision of seeing teacher development as a lifelong practice. To further the alignment with UNESCO, suggestions on how to improve levels of communication between teachers and other education professionals, both horizontally and vertically, are presented.

Much like Nepal, the need to address teacher professionalization is also present in Palestine, where systems to monitor and evaluate the progress of teachers can help to make technical and vocational education and training more relevant to the lived reality of Palestinian students. Suggestions such as moving to a more project-based learning model can ultimately lead to improved academic and economic outcomes for students.

In Nuevo Leon, Mexico, the need for a greater integration of social emotional learning within PD opens the possibility to strengthen teacher and school leader professionalization. Recommendations here align with the Futures of Education Report as there is an important emphasis placed on learning goals outside of the traditional academic purview. Crucially, this group recognizes that supporting social emotional learning does not stop with the student, and social emotional training, and support, needs to be provided to teachers and school leaders as well.

As in Nepal and Palestine, the group working in Central Falls, Rhode Island found that a lack of teacher capacity has had negative effects on student learning. In this context, despite being ESL-certified, teachers can struggle to reach students in their native language, creating barriers to student learning. This group offers the recommendation of intentionally building collaboration through ESL teachers, such as elevating them into leadership roles and bringing together content-specific teachers with ESL teachers to better support student learning.

In Kenya, the need for gender-responsive pedagogy is more present than ever in light of the pandemic, which has led to an increase in reports of sexual and gender-based violence, as well as a 40% increase in the country's teen pregnancy rate. To combat this trend, a partnership with universities to train teachers and counselors in gender-responsive pedagogy is presented as one possible solution.

And in Israel, the importance of a professional teacher workforce is paramount to the success of Etgar, a program that supports at-risk youth. Teachers are required to be trained on how to approach their work with an asset-based framework and how to build relationships with students who have experienced trauma or neglect. While much of this aspect of the Etgar program is in alignment with UNESCO's understanding of the transformative work of teachers, the group highlights how this framework relies heavily on the willingness of teachers to work at all times and recognizes this a pathway for strengthening the program's alignment with the Futures of Education Report.

Throughout these chapters, the absolute importance that teachers play in the educational ecosystem is highlighted and made evident. The more aligned a system can be to the calls from the Futures of Education Report to put teacher support and collaboration at the forefront of educational reform, the greater the opportunity there is to provide a quality education that prepares students both academically and professionally. No matter what school a student attends, the stronger the systems of teacher training, in-service support and in-service evaluation, and the more teachers are viewed as, and perform as,

consummate professionals then the greater outcomes society will see in its students.

1.10.4 School Organization

The UNESCO report places special attention on schools and calls for these educational sites to be safeguarded and transformed into centers of inclusion, equity, and individual and collective well-being. Schools, as many observed the last few years during the COVID-19 Pandemic, offer far more than just academic growth, they are a place for exploring, dreaming, developing as an individual, working together and creating change. The report calls upon schools to reimagine conventional classrooms, promote collaboration, and continue to keep equity at the center of their school buildings.

An instantiation of this vision in practice can be seen in the recommendations for Mongolia. The authors who were working with the Ministry of Education found that funds are being allocated to increase infrastructure and access to schools as a means of transforming schools into “human development centers.” Prioritizing this transformation with the means of nationwide government level funding demonstrates one way in which the report can be brought to life.

Another way in which schools and school structure can be prioritized at the highest level of government can be seen in the chapter on Palestine. Recognizing the diversity of student needs and aiming to ensure students can envision a future for themselves, Palestine has reorganized graduation levels and certificates in order to support the development of Technical Vocational Education and Training (TVEIT). Not only does this increase opportunity for students but it also highlights the power of collaboration and collective action via public-private partnerships.

Ensuring schools are equitable, inclusive and supportive spaces can happen more locally as well. In the case of Guanajuato, the author’s recommended that the state’s Ministry of Education practice collective leadership by allowing the teachers to be the experts in the accelerated learning efforts and therefore further

promote equity and inclusion. At an even more local level, in Central Falls, Rhode Island, USA, the author’s recommended the school district nurture a culture of collaboration and equity by establishing a Caregiver-Teacher Design team.

Schools have and will always be more than just classrooms—they are safe havens, centers of development and at their best, examples of equity. Whether in the form of nationwide government funding or district level initiatives, the chapters in this book highlight ways in which the report’s vision of school organization can be brought to fruition. These examples also demonstrate that the future of education can be achieved through incremental change as well as system wide transformations.

1.10.5 Lifelong Learning

The UNESCO report promotes a vision that a purpose of education is to “enjoy and expand the educational opportunities that take place across life and in different cultural and social spaces” (UNESCO, 2021, p. 14). Several teams found this to be a compelling vision aligned to the needs of their context and developed policy suggestions to promote lifelong learning.

In chapter 4 on Israel, the authors propose that a key lever in supporting students’ drive to continue learning is through training teachers in pedagogy that supports a future orientation. In Chapter 9 on Mongolia, the authors promote a policy recommendation that opportunities for lifelong learning can be provided by strengthening virtual learning.

Chapter 12 shows that in Palestine the promotion of lifelong learning is central to better serve all students in a system that struggles with a high drop-out rate. By strengthening alternative avenues for graduation, namely TVET, the authors propose that this will bolster students completing their secondary education and support lifelong learning.

Lifelong learning is multidimensional and can be a key part of sustainable development (UNESCO Institute for Lifelong Learning, 2020). Lifelong learning includes personal enrichment for individuals who wish to pursue their interests, important

professional instruction to upskill or reskill workers wishing to advance or change careers, and those who are forced to look for different careers due to labor market changes, as well as dynamic combinations across that span (London, M., 2021). The cases in this book suggest that there may be important connections between K-12 practices and lifelong learning, offering more opportunities for future collaboration in the spirit of the UNESCO report.

1.11 Conclusion

This book illustrates how UNESCO's report *Reimagining Our Futures Together: A New Social Contract for Education* can be used to analyze context specific education challenges and to propose strategies for improvement. The chapters in this book exhibit what such context-specific analyses could look like. They also demonstrate the value of the report to support efforts to engage university education with challenges of policy and practice.

The simple idea that education can be more transformative if it is based on practice, translated in this case in engaging students in collaboration with education authorities for the purpose of identifying opportunities for system level improvement, can result in the augmentation of the capacity of school systems for transformation. The ambitious vision in UNESCO's report to better align educational institutions with the gravest challenges of our times: challenges to human rights, democratic backsliding, growing poverty and inequality, social fragmentation and climate change, requires unprecedented levels of capacity and collaboration. The report invites the whole of society to participate in constructing better futures for education. This book is but one example of how such collaborations can be brought about. May it inspire many other university students and faculty to embrace the challenge of partnering with education systems to build a better future.

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Chapter Two. Bogotá, Colombia

Reducing Educational Gaps for All Learners

MacKenzie Bonner, Yue (Yoly) Liu, Yoonmi Kang and Lijuan Lee

Abstract

This chapter analyzes the alignment between Bogotá’s 2020 - 2024 District Developmental Plan (the Plan) and the UNESCO “Reimagining Our Futures Together: A New Social Contract for Education” report (2021). Through data collection and interviews with relevant stakeholders, the following comparative analysis concludes that the Plan strongly aligns with the five key domains of the UNESCO vision. Despite overall alignment, three main challenges persist within Bogotá’s current education system, which includes: (1) barriers to access and completion in secondary education; (2) educational gaps between rural and urban schools; and (3) equity gaps in education and socio-emotional challenges of displaced Venezuelan students. The recommendations made in this chapter (i.e., provision of digital resources and creation of virtual school-to-school networks; inclusion of Venezuelan teachers and adults in the school system; building parent-school partnerships; and leveraging private-public partnerships) complement Bogotá’s development plan. They serve to support the city’s recovery from the COVID-19 pandemic, reduce social discrimination and segregation, and protect the human rights of marginalized populations.

2.1 Context

Background Information

In Colombia, K-12 schooling is divided into four phases: (1)

early childhood, inclusive of pre-k and kindergarten (both non-compulsory) as well as 1 year at the transition level (compulsory); (2) primary school which lasts from 1st to 5th grade (compulsory); (3) basic secondary from 6th to 9th grade (compulsory); and upper secondary from 10th and 11th grade (non-compulsory). 72% of the students attend urban schools, and the remainder attends rural schools (Velásquez et. al., 2017). As the nation's capital and largest education system, Bogotá serves nearly 1.3 million students and over 62,000 teachers (Reimers, 2020). Students and educators spread across 399 public schools and 1,782 private schools. While 355 schools are located within urban regions, 28 rural schools are located in eight locations, serving 15,252 students and 1,431 teachers (SED, 2021; Varela, 2021).

Beyond the education system, Colombia has a complex history, impacted by ongoing conflict and changing migration flows. In 2016, the Government of Colombia and the Revolutionary Armed Forces of Colombia (FARC) reached a peace agreement, ending the 52-year armed conflict that has led to the internal displacement of nearly 8 million Colombians (UNHCR, 2021). The peace agreement, however, has not marked the end of violence, as accusations of serious human rights abuses continue across the country, particularly in rural areas (UNHCR, 2021). Despite the peace agreement, several illegal armed groups remained active, triggering approximately 106,000 new internal displacements in 2020, alone (OCHA, 2020). More than 386,000 internally displaced persons (IDPs) were thought to be living in Bogotá, a figure that represents around 5% of the city's overall population (IDMC, 2021).

In addition to Colombia's own population of IDPs, the country has received over 1.7 million migrants and refugees from Venezuela following the escalation of the economic and political crisis in 2015 (Chavez-Gonzales, et al., 2021). Despite efforts by governments to integrate Venezuelan youth into the national school system, it is estimated that 120,000 Venezuelan children and adolescents remain out of school in Colombia (USAID, 2020).

The COVID-19 pandemic thrust Colombia into an unprecedented crisis, adding to existing challenges and testing

the responsiveness of leaders. On March 6, 2020, the first case of COVID-19 was detected in Colombia (Reuters, 2020). The Colombian National Ministry of Education adjusted the official school calendar, prompting an early vacation and suspending all schools from March 16 to April 19. The SED of Bogotá diverged in their approach, continuing online instruction through the “Aprende en Casa” (AeC) (Learn at Home) program, which was adapted in various forms to meet the needs of specific student populations (Reimers, 2020). The SED of Bogotá also continued school-nutrition programs and devised strategies to fill the digital accessibility gap, particularly for students in public schools and rural areas (Reimers, 2020). As the country moves into the next phase of the pandemic, it will be necessary to assess the impact of school closures on students’ learning loss and the exacerbation of educational equity gaps.

2.1.1 The District Development Plan 2020-2024

On June 11th, 2020, the city of Bogotá adopted the “District Development Plan 2020-2024: A New Social & Environmental Plan for the 21st Century,” hereinafter referred to as *the Plan*. With a funding allocation that amounts to 24.90% of the total city budget, (Alcaldía de Bogotá, 2021), the Plan, under the jurisdiction of the SED of Bogotá, enumerates 28 goals for the four-year period from 2020 to 2024. The 28 goals fall under 4 larger purposes, 7 city achievements, and 10 programs.

The *theory of action* of the Plan is if Bogotá consolidates a new social, environmental, and intergenerational contract as outlined in the 2020-2024 District Development Plan, the city will recover from its economic, social, and educational loss from the COVID-19 pandemic, and then it will terminate the social discrimination and segregation and protect the human rights of the vulnerable and marginalized population, and finally, it will help to promote the city’s equity, social inclusion, and justice and let the citizens live a free, equal, and happy life. The Plan is in its early stage of implementation and has been impacted by the ongoing pandemic crisis. Therefore, there is limited data on the progress towards each of the 28 goals.

Accountability System of the Plan

The Observatory for Educational Management (ExE Observatory) tracks the progress of the National Ministry of Education and each individual Secretary of Education in making progress towards Plan goals. In addition to accountability and transparency measures conducted from outside entities such as ExE, the SED of Bogotá implements its own accountability metrics. Specifically, the SED utilized the Multidimensional Evaluation System for Educational Quality (SMECE) as a framework for tracking progress towards the 28 goals outlined in the Plan. This evaluation framework aligns with UNESCO's dimensions of quality (equity, relevance, effectiveness, and efficiency) and is comprised of six subsystems: (1) evaluation of students; (2) evaluation of teachers; (3) institutional evaluation; (4) evaluation and monitoring of educational policy and research; (5) management; and (6) transfer of knowledge. SED had specific indicators for their goals of the Plan.

Alignment between the Plan and the UNESCO Report

The goals of the Plan address all five domains indicated by the UNESCO Report, as listed below:

- Domain 1: Pedagogies of Cooperation and Solidarity;
- Domain 2: Curricula and the Evolving Knowledge Commons;
- Domain 3: The Transformative Work of Teachers;
- Domain 4: Safeguarding and Transforming Schools;
- Domain 5: Education across Different Times and Spaces.

For Domain 1 and Domain 4, the Plan intends to transform schools into territories of peace, as many children have directly or indirectly suffered from the armed conflict. The Plan targets implementing socio-emotional pedagogies and programs in schools to promote mental health, socio-emotional wellbeing, and prevention of psychoactive substance use and violence. The

Plan also promotes greater inclusion of vulnerable populations in schools, including victims of the conflict, migrant students, students with disabilities, and students in hospitals, and refuge settings. While the Plan establishes specific strategies to build cooperation and solidarity, as suggested in Domain 1, the main idea of promoting social inclusion also aligns with Domain 4. As for Domain 2, in light of knowledge as part of the global commons, the SED goes beyond the traditional view on curriculum as more than a grid of school subjects. The Plan foresees connecting environmental education with school curricula and aims to teach students a breadth of skills, such as autonomous learning and virtuality, and socio-occupational competencies, to cultivate young people with abilities for better skills improvement and school-to-work transitions. The Plan seeks to strengthen the English curriculum in public schools for plurilingualism, and to promote democratic and civic education through the “girls and boys educate adults” program that allows young students to participate in city planning and construction processes. Moreover, the SED addresses Domain 3 by foreseeing teaching as a collaborative endeavor. The Plan carries the mission of educators to collaborate with citizens on formulating educational policies; it tackles professional development by promoting research capacity in teaching fraternity and learning networks across schools, nurseries, and research and innovation groups. Lastly, for Domain 5, the SED focuses on expanding educational opportunities across the lifespan and in different social spaces. The Plan directs strengthening the family-school relationship through virtual learning environments and ensuring all students’ right to education from pre-kindergarten to higher education through the “Youths to the U” program, for instance, that increases coverage of students’ access to higher education.

2.1.2 Methodology

We gathered information on Bogotá’s past and current Plans through multiple sources, including interviews, questionnaires, SED policy documents, data from the ExE observatory, multilateral and international reports, news articles, and scholarly articles. We interviewed officials from the SED as well

as teachers to hear from diverse levels of personnel in Bogotá's educational system. The teacher participants were recruited through purposive sampling by the officials of the SED. In the interviews, we asked participants to describe their own understanding of the problems of Bogotá's educational system and the impact of the Plan. Using the collected qualitative and quantitative data, we analyzed the problems of Bogotá's educational system and its current Plan and made recommendations.

2.2 Challenges

2.2.1 Challenge 1: Barrier to Access & Completion in Secondary Education.

Colombia has dramatically expanded access to schooling at all levels over the last decade. In recent years (2015-2019), Colombia has achieved average net enrollment rates above 90% (UIS, 2020). Aligned with this trend, the SED has reported increased enrollment rates across all levels, with an average net enrollment rate of 96.3% (ExE, 2020). Despite these gains, however, there are still gaps in enrollment and graduation rates for students beyond the primary level. Secondary education is divided into two components. Students must attend four years of compulsory basic secondary education in 6th to 9th grade, known as *educación básica secundaria* (MEN, 2017). Upper secondary education consists of two years of non-compulsory education in grades 10 and 11 known as *educación media* (MEN, 2017). In both levels of secondary education, gaps in enrollment and graduation rates persist (ExE, 2021).

Enrollment rates in secondary education (basic and upper secondary) are much lower than the total average net enrollment rates at both the national and local levels. In 2020, at the national level, the net enrollment rate for basic secondary education was 79.4% and the net enrollment rate for students in upper secondary education was 46.9% (ExE, 2021). In Bogotá, the 2020 net enrollment rate for basic secondary education was 89%, and the net enrollment rate for students at upper secondary education in the same period was 57% (ExE, 2021). These figures reveal that less than 50% of students nationally

and less than 60% of students in Bogotá are enrolling in upper secondary education. This enrollment gap in upper secondary education has significant implications, as they directly translate to gaps in the tertiary education sector. Thus, improving secondary enrollment and graduation rates will have implications for the labor market and economic development of the country, and the capital city of Bogotá, moving forward. While data on the demographics of students who experience challenges related to enrollment in secondary education is relatively limited, students from rural and migrant communities experience heightened barriers to enrollment, to be discussed further in this chapter.

Within Bogotá, the total dropout rate (across all levels) has significantly decreased over the past several years, from 4.85% in 2014 to 1.82% in 2019, the most recent year of available data (ExE, 2020). In 2019, the dropout rate in Bogotá was 1.82% at the basic secondary level and 1.41% at the upper secondary level (ExE, 2020). Despite the reduction in dropout rates, this rate is still an area of concern when accompanied by already low enrollment rates at both levels of secondary education. Data on the demographics of students who experience challenges related to dropout in secondary education is relatively limited. Dropout rates specific to students in rural and migrant communities will be discussed in further detail further in this chapter.

Pre-existing Efforts to Resolve the Problem

National Level. The government has taken steps over the last decade to improve access to the secondary education system and improve graduation rates, including a 2007 National Survey on Desertion (MEN, 2013) and a partnership with the World Bank (World Bank, 2013). More recently, the national government has set the goal of making upper secondary education (grades 10-11) compulsory by 2030 (OECD, 2016), though limited data exists on regional or national progress towards this major goal.

Bogotá Level. In Bogotá, the main effort to reduce secondary-level dropout rates and increase graduation rates has been the pilot program, *Subsidios Condicionados a la Asistencia Escolar* or *Conditional Subsidies for School Attendance*. The conditional cash

transfer (CCT) program, which provided cash transfers directly to secondary school students (age 14-16) based on attendance criteria, began as a pilot study in two of the city's districts in 2005 (San Cristobal and Suba), targeting students in the poorest areas (Silva, 2017).

The CCT pilot program was later transformed into the School Mobility program, currently operating under the guidance of the Student Welfare Directorate (SWD) (SED, 2021). The program provides a school transportation subsidy to eligible students. The value of the subsidy is determined annually by the Social Welfare Directorate in accordance with budget capacity, the number of projected student beneficiaries, and the current costs of the city's mass transportation system (transmilenio) (SED, 2021). Subsidies are based on students' enrollment status and the corresponding days in which the student fulfilled their commitment to attending classes, as reported by their school. Subsidies are dispersed in four cycles based on attendance verification reports by the schools (SED, 2021).

Current Plan Efforts in Bogotá

The capital city has advanced beyond the national average in terms of secondary enrollment and graduation rates, the SED still considers secondary-level enrollment and permanence a main priority. To that end, the ongoing Development Plan asserts that “young people between 14 and 28 years old will be a population to which training and education opportunities will be provided, following their purposes, and adequate to the development expectations of the Bogotá region” (SED, 2020). The Plan also affirms a specific commitment to strengthening secondary education (particularly grades 10-11) and lists the following as one of the seven primary city achievements: “Reduce the percentage of young people who neither study nor work, with an emphasis on low-youth income and vulnerability” (SED, 2020). As previously mentioned, the Plan is in its early stage of implementation and has been impacted by the ongoing pandemic crisis. Therefore, there is limited data on the progress towards this goal.

Under this city achievement, the SED has implemented the

following program: *Young people with abilities: Life project for citizenship, innovation, and work in the 21st century*. This program aims to “strengthen and expand the offer in secondary education that offers opportunities for exploration, diversification and socio-occupational orientation and skills that promote the promotion of entrepreneurship and other productive alternatives for young people, allowing them to improve their transition to higher education, as well as training for work that gives them tools to build successful career paths” (Varela, 2021). Additionally, the program focuses specifically on students in grades 10 and 11 (Varela, 2021). This program directly aligns with UNESCO’s Domain 5: Education across Different Times and Spaces. Bogotá’s prioritization of strengthening secondary education reflects UNESCO’s suggestion to broaden the right to education, which emphasizes the need for education from children to youth and adults.

2.2.2 Challenge 2: Educational Gaps between Rural and Urban Schools.

Colombia experiences a lack of educational access and low quality of education for students in rural areas. Specifically, the following four main factors characterize Colombia’s rural education: (1) inadequate educational infrastructure; (2) rigid and centralized administrative structure; (3) low-skilled and unskilled school directors and teachers; and (4) alienated the school environment to community needs.

Serving 28 rural schools, 15,252 students, and 1,431 teachers (SED, 2021), Bogotá deals with the aforementioned factors in rural areas. Rural areas have lower socioeconomic conditions than urban areas, with 86% of rural students living in poor households (Malaver, 2017; SED, 2018). Specifically, the SED officials stated that students in rural areas have a significant lack of access to information and communication technologies at home, and the pandemic amplified the large digital divide in rural and urban households for educational purposes (Varela, 2021). Another impediment is lower levels of parental involvement in children’s education in rural areas (Malaver, 2017). These conditions have culminated in lower educational

outcomes for students in rural areas, nationally and in Bogotá.

As a result of the factors outlined above, rural areas, which are in the periphery of Bogotá, experience higher repetition and dropout rates as well as lower average levels of educational achievement than urban areas. Students drop out from rural schools due to fewer educational institutions and low-quality resources (Central Bank of Colombia, 2021). For instance, some rural schools do not provide a level of education up to the 11th grade (El Tiempo, 2017). Many rural students may also need to travel long-distance to educational institutions. Research (Central Bank of Colombia, 2021) has shown the negative and statistically significant effect of this geographic isolation on the educational urban-rural gap. The percentage of underperforming students was 2.81% in rural schools as compared to 0.84% in urban schools (SED, 2021). According to the results of the SABER 11 test, a standardized high school exit exam conducted in Colombia, rural schools on average scored 14 points lower than urban schools (Varela, 2021). This gap of achievement consistently existed across all the tested subjects, including Natural Sciences, Social and Citizens, English, Critical Reading, and Math (Varela, 2021). Rural students also scored lower in digital illiteracy than urban students (Varela, 2021).

Pre-existing Efforts to Resolve the Problem

National Level. In order to bridge the national rural-urban gaps in student enrollment, attendance, and academic achievement rate, Colombia MEN initiated the “Special Rural Education Plan” comprising multi-pronged strategies (2018). For preschool, basic, and secondary education, MEN consolidated relationships between schools, families, and communities in the rural areas by increasing the participation of family and community in educating students and strengthening their capacities and support for students.

Bogotá Level. In addition to alignment with national strategies, Bogotá specifically focused on their efforts to support rural students who had a lack of educational resources, food, and transportation to go to schools, which inhibited them from achieving better educational outcomes. Bogotá maintained and

improved the equipment and infrastructures of rural schools, including dining halls, classrooms, sanitary places, water purification systems, etc. (El Tiempo, 2017). The city government also provided schools with delivered breakfasts and lunches that involved 5,589 snacks and 6,879 rations of hot food for children (El Tiempo, 2017), and offered 216 buses to 14 rural schools to guarantee 6,207 students' transportation between schools and homes (El Tiempo, 2017).

Current Plan Efforts in Bogotá

The main goal of Bogotá's current education Plan is to guarantee that both rural and urban children have equal rights to receive a high-quality education. Bogotá's current policy includes six guidelines that aim to promote the needs of rural schools from preschools to higher education, aiming at implementing quality education in 100% rural schools (SED, 2021). It is the first time in history that Bogotá carries out an education policy to close the rural and urban gap, allocating \$20 billion pesos to fulfill this goal (District Development Plan). On September 1, 2021, the SED (2021) officially formalized the six educational policies specifically for the rural areas:

- 1) Guarantee students' complete educational paths from preschool to higher education;
- 2) Reduce the poverty in rural communities;
- 3) Increase students' at-school time ("Single School Day") in rural schools;
- 4) Promote educational relevance to the needs of the rural context;
- 5) Involve families in educating students;
- 6) Promote education for coexistence and peace.

Following these policies, SED has carried out specific actions to close the rural-urban educational gap. For example, to guarantee rural students' complete educational path, it implemented the Special Program for Admission and Academic Mobility of the National University to support students from 50 rural areas to gain access to higher education (SED, 2021). To reduce the impacts of rural poverty, it redesigned the prepared food

delivery aid system to offer 275,000 baskets with food rations to rural students' homes (SED, 2021), and it also delivered technological devices like tablets and laptops to 6th-11th-grade students in rural public schools (SED, 2021). These efforts all reflected UNESCO's Domain 5: *Education across Different Times and Spaces*, as Bogotá aims to broaden all student's rights to education, regardless of their geographical location. Limited data on the progress towards this goal exist, as the Plan is in the early stages of implementation.

2.2.3 Challenge 3: Equity Gaps in Education and Socio-Emotional Challenges of Displaced Venezuelan Students.

In addition to its own internally displaced population, Colombia hosts over 1.7 million Venezuelan citizens in Colombia as of January 31, 2021 (Statista, 2021). The capital city, Bogotá, concentrated the highest share of displaced Venezuelans (over 340,000), which represents nearly 20% of the total number of Venezuelans residing in Colombia at that point in time (Statista, 2021). The ongoing COVID-19 pandemic has put Venezuelan children and their families in an even more dire situation than before. Many depend on insufficient daily wages to cover basic needs such as shelter, food, and healthcare, and with social distancing, growing fear, and potential for social unrest (UNHCR Canada, 2020). This community is at an ever-increasing risk of being stigmatized.

Venezuelan children in Bogotá face many challenges that impact their access to schools and quality education. Other than the traumatic experience of crossing the border straining their social-emotional well-being, displaced students shared increasing reports of discrimination that impact their well-being (USAID, 2020, pg. 63). For instance, according to González's study (2021, p. 30), the percentage of Venezuelan students in Colombia who reported experiencing discrimination rose from 24% to 64% from 2018 to 2021, and 25% of Venezuelan students reported that they experienced bullying in school (USAID, 2020, p. 63).

Moreover, according to USAID (2020), Venezuelan children in Colombia lack access to schooling due to barriers including

distance and availability of transport to school, available school places, the need to work (for adolescent students), indirect school costs, and Colombian documentation requirements. In addition to this, the Venezuelan community's limited knowledge of the education system and school capacity limitations were also barriers to school enrollment of displaced students (UNICEF, 2021). In addition, the misalignment between the education systems of Colombia and Venezuela can cause students to be placed in different grade levels than they are rightly assigned (USAID, 2020, p. 42). Finally, the increase in migration inflows has caused a reported lack of personnel in regional municipalities to meet the requirements of the arriving population in education settings (UNESCO, 2020).

Pre-existing Efforts to Resolve the Problem

National Level. In 2018, the inflow of Venezuelan migrants into Colombia prompted changes to national-level immigration policies (USAID, 2020, p. 44). School-aged Venezuelan children were issued Identity Number Established by the Secretariat (NES)—a unique identification number—enabling them to enroll in schools (USAID, 2020, p. 44). In February 2021, Colombia provided ten-year temporary protection status (TPS) to Venezuelans in the country, expanding access to social services and integration into the community (United Nations, 2021).

Bogotá Level. The Government of Bogotá has taken steps to address the needs of the 340,000+ Venezuelans living within the city (Statistica, 2021). Within the education sector, the Plan outlines the integration of Venezuelan children into schools under the jurisdiction of the SED; beyond the education sector, the overall policy response towards the integration of Venezuelans into the broader society varies across sectors. For example, the Secretary of Social Integration (*Secretaría Distrital de Integración Social*) has a migrant response and assistance plan, including a branch tasked with identifying, profiling, and integrating vulnerable groups (MMC, 2020). Additionally, in 2018, the Secretary of Economic Development adopted two strategies for economic inclusion: one focusing on

entrepreneurship and one on employment which included job fairs for Venezuelans (MMC, 2020); in 2019, the Bogotá Chamber of Commerce (CCB) launched a pilot program called “Productive Migration” which aimed to promote the inclusion of migrants in the city economy and stimulate new enterprises (MMC, 2020).

Beyond governmental intervention, humanitarian support, such as the delivery of food and water, provision of temporary shelter, and health services, have been primarily provided by third-party humanitarian actors (UNHCR, IOM, ACDI-VOCA, FUPAD, CUSO) and legal aid clinics (MMC, 2020). Overall, the city-wide policy response has not fully addressed the scope of needs for the displaced Venezuelan community (Mixed Migration Center, 2020).

Current Plan Efforts in Bogotá

As the capital city, Bogotá has attempted to address the problem of the socio-emotional well-being of displaced students, broadly, in the Plan, though the Plan does not explicitly mention the specific needs of displaced Venezuelan children. The SED (2020) implemented the following program: *Bogotá, a territory of peace and comprehensive care for the victims of the armed conflict*, to “inspire trust and legitimacy (for its people) to live without fear and be the epicenter of civic culture, peace, and reconciliation.”

The program aims to contribute to the goal of “recognizing truth, forgiveness, and reconciliation as principles for peace-building in schools, as well as promoting citizen participation” (García Quintero, 2021). To this end, the program focuses on constructing schools as territories of peace through professionals who support school guidance, which includes strengthening mental health, socio-emotional well-being, prevention of psychoactive substance use, and prevention of violence (SED, 2020). Additionally, the program aims to implement socio-emotional and civic education programs in all public schools in Bogotá and to create networks among parents in the 20 localities of schools, where the training processes are generated and parenting experiences can be shared, as part of the implementation plan (SED, 2020). The SED believes that

transforming schools into territories of peace, and strengthening the victims of the conflicts and displaced population would bring socio-economic stabilization to the city (SED, 2020). This program aligns with Domain 4 of the UNESCO report, which calls for the importance of protecting schools as educational sites of inclusion, equity, and individual and collective wellbeing.

2.3 Recommendations

2.3.1 Recommendation 1: Provide digital resources and create virtual school networks among urban and rural areas.

Bogotá's rural schools still have relatively lower-quality teachers due to a variety of factors, as well as a lack of technological resources (Erb, 2019), and students in rural communities also experience heightened barriers to secondary school enrollment and completion. In order to address this educational gap between urban and rural areas, the SED could invest in a virtual network between urban and rural schools. Using technology to create collaborative environments despite the distance, the network will facilitate a self-improving system, in which schools support one another to raise standards of teaching and learning to address the educational inequality. According to a study on school networks in the English context (Armstrong et al., 2020), networks between high-performing schools and those in the bottom tier, such as low-performing schools in rural contexts, have a significant influence on student outcomes in low-performing schools. Moreover, according to the same research, school networks facilitate improvements in school climate and staff development opportunities by increasing support for problem-solving and curriculum development with schools co-constructing joint courses that they would not have had the resources to develop individually, and by improving teachers' understanding of their own pedagogy and pupil learning through the collaboration process. Foreseeing positive impacts on both students and teachers, schools may choose to join the networks voluntarily with a common interest and priority of addressing the educational gap, or the SED could promote the networks by incentivizing the schools, such as by promoting participating

teachers or paying them.

The virtual network would require digital technology in rural areas. The SED could achieve this by building off of the existing “Aprende en Casa” (AeC) (Learn at Home) program that provided digital technologies and Internet connectivity to schools of different areas during the pandemic (Santamaria & Reimers, 2020). If implemented, Bogotá could evaluate the effectiveness of this network by analyzing rural students’ learning outcomes and partnering with other rural localities in Colombia to implement the program on a broader scale.

This recommendation supports the continuation of the present Plan in Bogotá and aligns with the UNESCO report on Domain 3 about teachers’ professionalism and collaboration for education and social transformation.

2.3.2 Recommendation 2: Leverage Venezuelan teachers and adults within the school system of Bogotá in order to support the needs of Venezuelan students.

Colombia hosts the highest number of displaced persons, ranking second only to Turkey, which hosts an estimated 3.7 million refugees (UNHCR, 2021). Turkey has been successful in efforts to mobilize Syrian refugees as teachers. Funding from UNICEF enabled Turkey to employ Syrians as volunteer teachers who work 10 hours per week in exchange for a monthly stipend ranging from \$150 to \$220 (Qaddour, 2017). According to UNICEF, since 2013, the organization has trained 20,000 Syrian teachers (Qaddour, 2017). Similar to Turkey, the government of Jordan has also mobilized Syrian volunteers and teachers in order to combat deficits in the capacity of its own school system (UNICEF, 2017).

The SED could consider expanding efforts to mobilize displaced Venezuelan adults as teaching personnel within the school system, mirroring the strategies utilized in Turkey and Jordan. This strategy could address teaching shortages exacerbated by the influx of new students. One of the challenges towards the successful implementation of the Syrian teacher integration program in Turkey was the presence of linguistic and

cultural barriers. Through interviews conducted by the Carnegie Endowment for International Peace (2017), many Syrian-born teachers expressed a desire to become fluent in Turkish, but an inability to do so, amidst challenges of displacement and stress. Some teachers revealed that they experienced a lack of respect from both Turkish colleagues, which compromised their authority when instructing Turkish students (Qaddour, 2017). Since displaced Venezuelan nationals share the same language (Spanish) as Colombians, as well as many of the same cultures and customs as Colombians, integration efforts could prove more effective (USAID, 2020).

Educators are uniquely situated to support students navigating the complexities of displacement, societal integration, and future uncertainty. Existing scholarship highlights the importance of educators who can relate to their students through a shared sense of identity and who can critically reflect on their students' experiences and their teaching practices in relation to their social and political views and interests (McKinney de Royston et. al, 2021). Thus, the presence of Venezuelan adults within schools may ensure that Venezuelan students feel more supported in their educational journey. Currently, limitations exist for Venezuelan teachers to exercise their profession in Colombia (UNESCO, 2020). Easing such limitations and implementing programs to leverage the capacity of displaced Venezuelan teachers and adults in schools (as teachers, teaching assistants, consultants, after-school support staff, etc.) could address teacher shortages and promote positive outcomes for Venezuelan students. Additionally, this initiative overlaps with the challenge of secondary education access, as migrant communities experience heightened barriers to enrollment and completion.

This strategy aligns with Domain 1 of the UNESCO report, which calls on the importance of creating schools as platforms for cooperation and care, and Domain 4, which emphasizes teachers as key figures in educational and social transformation.

2.3.3 Recommendation 3: Build partnerships between schools and parents to share collective responsibility for students' success in the education system.

A major factor that contributes to educational outcomes for all students is the degree of parent involvement. In Bogotá, parents' limited knowledge of the education system and low involvement in their children's education can contribute to lower educational outcomes for students, particularly those in rural or migrant communities. According to an immense body of research (Long, 2007; Schargel et al., 2004; Henderson & Berla, 1994; Rich, 1987), parental engagement is positively related to improved academic achievement, and a study (Amatea & West-Olatunji, 2007) further supported that parental involvement is more important to children's success at school than their family's socioeconomic status, race/ethnicity, or educational background. It shows how parental involvement could offset the negative impacts some rural and Venezuelan students had from their low-income backgrounds. Moreover, according to another research, parental involvement in school is significantly associated with lower rates of school dropout (Barnard, 2004) and increased on-time high school completion since parental involvement prevents retention by supporting students' school adjustment (Serna & Martínez, 2019). This hints that parental involvement could also help address the problem of secondary education in Bogotá.

Despite the enormous benefits, however, parents in Bogotá, especially ones with low socioeconomic backgrounds, may face barriers (i.e., nonflexible work schedules, lack of resources, transportation problems, and stress from residing in disadvantaged neighborhoods) to engage in their children's school activities and their education. In an effort to overcome such barriers and support the parents, schools in Bogotá should take the initiative in providing a welcoming climate where partnerships with parents are respected. It is important to note the immense challenges associated with increasing and maintaining parent involvement in schools. Schools could promote co-constructed lessons with parents, parent-teacher conferences, parental volunteer activities, and workshops and seminars for parents on monitoring the learning of their children

at home. Schools should be offered the flexibility to adapt strategies to fit the specific needs of their demographic.

Although Bogotá set encouraging the creation of parent networks as one of the goals in the Plan, this goal focuses on parent-parent relationships, rather than parent-teacher relationships. Moving forward, Bogotá should press importance on schools' partnerships with parents as an effort to promote solidarity and cooperation in the educational system. As highlighted by UNESCO (2021), "parents and families [should] be welcomed to participate in sharing and valuing diversity and pluralism alongside their children," (p. 148) which is essential in transforming pedagogy around the principles of cooperation and solidarity.

2.3.4 Recommendation 4: Leverage private-public partnerships in Bogotá to reduce school distances, lower dropout rates, and narrow equity gaps in education.

To support students more susceptible to secondary education barriers, as well as students from rural and migrant communities, it will be critical to continue and expand upon existing public-private partnerships. The SED could continue collaboration with the District Secretary of Planning (*Secretaría Distrital de Planeación*) as well as the District Secretary of Mobility (*Secretaría Distrital de Movilidad*). Schools that are long distances from children's homes increase the opportunity costs of schooling and can pose safety and security hazards. It may deter children from enrolling in schools or cause them to drop out. To reduce distances between children's homes and schools, the SED could collaborate in strengthening the existing Transportation Subsidy program (*Subsidios de Transporte*) in Bogotá, currently targeted at low-income students (Silva, 2017), to benefit a wider student population such as the displaced rural and Venezuelan children due to long-distance travel between their homes and schools. The SED could collaborate with the District Secretary of Social Integration (*Secretaría Distrital de Integración Social*), the Secretary of Finance (*Secretaría Distrital de Hacienda*), as well as non-profit organizations, to reduce barriers to employment for students' families. This is necessary for Venezuelan students whose

families may have difficulties finding stable and higher-quality jobs in Bogotá due to their lack of recognition for foreign-earned credentials.

The SED could continue collaboration with the private sector. When COVID-19 hit Bogotá in 2020, the national government collaborated with the private sector and non-governmental organizations, such as the Enseña por Colombia (ExC) to fill the digital accessibility gap (Saenz, Medina & Holguin, 2020). In a similar vein, the SED could leverage private-public partnerships to narrow the resource divide, particularly in rural schools. For instance, SED could work with technology companies to provide digital devices for students and/or professional training on the use of digital tools for educators at low or subsidized costs. These recommendations also align with UNESCO's Domain 1, which calls for the increased interconnectedness and interdependencies and the need for individuals to work together at different levels to transform themselves and the world.

2.4 Conclusion

The District Development Plan of Bogotá aligns with all five domains of the UNESCO report. This chapter focuses on analyzing three educational gaps that persist in Bogotá's current educational system and making recommendations to reduce those gaps. The analysis suggests that Bogotá continues its present trends, while simultaneously considering adopting the proposed recommendations.

As the capital city, Bogotá is positioned as a policy leader within the broader national context. The authors of this chapter anticipate that ongoing efforts, coupled with our targeted recommendations, will set the tone for other Colombian municipalities to actively work towards building educational systems that strive for equity and inclusion of all students.

Author Biographies

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Yue (Yoly) Liu comes from China. She is a student in the HGSE Education Policy Analysis program with a concentration in Global International Comparative Education. She used to work for the United Nations South-South Cooperation project and the Ghana Ministry of Education. She has also conducted research projects on international education policy, especially in low- and middle-income countries.

Yoonmi Kang is from South Korea. Before she joined the Education Policy Program at HGSE, she studied Elementary Education, and Applied Psychology and Human Development for her undergraduate degrees. For the past few years, she has worked as a researcher for the Metropolitan Office of Education in Seoul, South Korea, to analyze and make recommendations for the latest educational change of the province.

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Chapter Three. Ecuador.

Education & COVID-19: Increasing Rural Education Access

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Abstract

This chapter identifies student access as the main challenge to ensuring educational opportunities during the COVID-19 pandemic in Ecuador's Education Administrative Zone 5. The focus on Zone 5 allows generating recommendations for eventual scaling at the national level. The research team conducted a survey with over 8,800 teacher participants. This survey showed that more than 25% of students have not been in contact with a teacher and identified the main reasons for absence as the fear of coming back to school, lack of internet connection, lack of resources, child labor, and gender inequality. Additionally, we held focus groups with additional teachers, DECE (Student Council Department) professionals, and principals. This chapter includes pertinent literature on student access in Ecuador and similar contexts internationally. Using the criteria of urgency, feasibility, cost, and effectiveness, the team proposes three actionable policy alternatives to increase student access: (1) Mobile school, (2) Communication Campaign, and (3) Learning Support System. Two non-actionable alternatives conclude the proposal: (1) Cash Transfers and (2) Infrastructure Investments. The team's final policy recommendation involves increasing rural student access with the proposed ERA Program (*Ecuador Recupera Aprendizajes, Ecuador Recovers Learning*), a recommendation to provide educational access in remote areas through partnerships.

3.1 Introduction

In Ecuador, the COVID-19 pandemic disrupted the educational opportunities of close to 4.5 million students (Romero, 2021), which revealed and exacerbated discrepancies in access to education based on the location and socioeconomic status of students. Access is defined as “on-schedule enrollment and progression at an appropriate age, regular attendance, learning consistent with national achievement norms, a learning environment that is safe enough to allow learning to take place, and opportunities to learn that are equitably distributed” (Lewin, 2015, pg. 29). UNICEF (2020) reported that in Ecuador, 50% of children were living in poverty prior to school closures, and six out of ten families did not have internet access. Additionally, 46% had access to smartphones; however, only 28% of rural communities had access to them, as opposed to 54% in urban communities with a similar divide in internet access (Ministry of Education Ecuador, 2021a).

To address this problem, the Ministry of Education launched two initiatives: (1) *Puntos de Reencuentro*, to collect data and progressively integrate families, students, and teachers to a gradual in-person learning environment while following safety guidelines; and (2) *Aprender a Tiempo*, designed to address learning loss of students due to COVID-19 through five elements: reading and writing, recovering learning, social and emotional learning, prevention of exclusion and school retention, and the promotion of high expectations and collaboration.

Although the pandemic negatively impacted students’ access across the country, this chapter focuses specifically on one of the Education Administrative Zones in Ecuador, Zone 5. This Zone is located on the Coastal and Sierra regions. The provinces it encompasses are Bolívar, Santa Elena, Galápagos, Los Ríos and Guayas, without the cities of Guayaquil, Samborondón or Durán. Therefore, its geographical, administrative, and cultural diversity provides the opportunity to obtain insights that can later be scaled to the national level.

3.2 Ecuador: Importance of the Issue and Empirical Evidence

This section provides evidence on how COVID-19 has impacted access to education in Zone 5. This zone is one of Ecuador's nine zones and serves 694,020 students, comprising around 16% of all students in Ecuador. 25% of teachers in Zone 5 teach in rural areas, which shows a similar urban/rural divide compared to the whole country. In December 2021, 48% of all schools in Zone 5 reopened for blended instruction (Ministry of Education Ecuador, 2021b) and all schools plan to go fully back to in-person learning in May 2022 (El Universo, 2021). We conducted a Google-Forms survey shared via email and WhatsApp with teachers and collected 8,888 answers, reaching 30% of all teachers in Zone 5 (58% of all rural teachers and 21% of all urban teachers). The high participation of rural teachers left us pleasantly surprised; however, the gap in responses needs to be further investigated, as there are no apparent explanations and there might be other influencing factors. We also collected information through interviews with key personnel within the Ministry of Education, as well as focus groups with teachers, school principals, and professionals of the Student Council Department or *Departamento de Consejería Estudiantil* (DECE) in Spanish.

3.2.1 Access to Education

The survey results show that 24% of students in rural and 29% in urban areas have not been in contact (online, phone calls or in-person) with their teacher, and around 32% in rural and 35% in urban areas have not been to in-person or online classes in the past two weeks since survey completion in the week of November 29th, 2021. Table 2.1 provides a more detailed overview of how students are studying, divided into rural and urban areas. The three different types of school levels show differences where more students in high school have returned in person (in both areas). Printed materials and family visits are more common in rural areas, whereas more students study online in urban areas.

Table 3.2.1: Survey results

How are the students studying? (more than one option was possible)	RURAL			
	All	Inicial *	EGB **	Bachillerato ***
in person	29%	17%	25%	44%
online	48%	54%	49%	40%
printed material	31%	35%	32%	25%
family visits	21%	22%	22%	21%
not studying	7%	8%	6%	10%
other	10%	13%	10%	11%

How are the students studying? (more than one option was possible)	URBAN			
	All	Inicial *	EGB **	Bachillerato ***
in person	23%	14%	17%	37%
online	53%	58%	57%	43%
printed material	26%	34%	26%	23%
family visits	18%	19%	18%	18%
not studying	9%	8%	8%	11%
other	10%	12%	10%	11%

Elaboration: Authors, 2021

* Preschool, ** Primary and middle school (Educación General Básica), ***High School

The reduction in matriculation in schools is confirmed by teachers who participated in the focus groups. Teachers in our focus groups explained the families’ prioritization of the education of middle-aged students, the need for students’ help with house and agricultural tasks, as well as not being able to afford a bus ride to school. A research project sponsored by the World Bank provides more detailed insights that the period between 11 am and 3pm were the peak hours for students’ work (Asanov et al., 2020). This was predominant amongst lower-wealth students and female students in household tasks, in comparison to male students working outside the home (Asanov et al., 2020). Students and families have even asked schools to allow them to continue studying in a remote modality, receiving

printed materials from their teachers. This occurs when accessing connectivity or affording transportation is not possible and is partly an explanation for the discrepancy of students attending classes (online or in-person) versus students that are not studying.

The results align with the national data from the Ministry of Education, which shows a significant reduction of matriculated students and increased dropout between the school year 2019-2020, when the COVID-19 pandemic struck Ecuador, and the 2020-2021 school year. This reduction is especially remarkable in the Initial Education sublevel, with a reduction of 14.53%, translated into the dropout of some 46,523 students (Ministry of Education Ecuador, 2021b). In the survey, urban teachers reported a slightly higher percentage of students not attending classes and not studying; further research should be conducted to elaborate on these findings.

3.2.2 Main Barriers in Students' Access

According to our survey, the four main reasons for students facing access barriers are (1) Fear of COVID-19 transmission during in-person education, (2) lack of internet connection, (3) lack of resources / electronic equipment, and (4) child labor, each of which will now be described in more detail. These barriers coincide with a literature review about the main educational access challenges in Ecuador and with focus groups the research team conducted with Ministry of Education personnel and Zone 5 teachers. It was possible for teachers in the survey to choose more than one option and the percentages reflect the proportion of teachers mentioning the barriers below.

3.2.2.1 Fear of Coming Back to School Because of the Pandemic

As the most mentioned answer in the survey, fear of the pandemic was slightly more prevalent in urban areas (58%) compared to rural areas (54%). This might explain why teachers in urban areas reported a slightly higher percentage of students

not studying. Families' fear of the pandemic was mentioned in teacher focus groups, in addition to teachers themselves being fearful of not being able to handle so many students with a lack of materials, teacher shortage, and high risk of COVID-19 transmission. Additionally, around 18% of all private-school students in Ecuador have migrated to public schools due to their inability to afford private school expenses (Ministry of Education Ecuador, 2021c; Primicias, 2021a). The increase of students is also mentioned in the focus groups conducted, with teachers explaining obstacles for establishing communication with new students. The focus groups emphasized that this increase in students also puts demand on the Ministry of Education to generate infrastructure changes and mechanisms to ensure biosafety measures within schools.

3.2.2.2 Lack of Internet Connection

Around 50% of the teachers in both rural and urban areas mentioned internet connection as one of the main challenges. Interestingly, more teachers in urban settings mentioned it compared to rural teachers, which may partly be because of different modes of teaching. Meanwhile, internet access is a challenge in the whole country, only being available to 53.21% of households (CARE, 2021).

3.2.2.3 Lack of Resources / Electronic Equipment

The third reason, mentioned by 30% of rural teachers and 37% of urban teachers, is the lack of resources and equipment. The open-ended questions in the survey provided a more nuanced insight into the type of resources that are needed, as teachers mentioned a variety of topics such as biosecurity measures, and adequate infrastructure such as clear water and furniture.

3.2.2.4 Child Labor

At the high school level, 48% of rural and 52% of urban teachers mentioned that one major reason for dropout is that students

started working. This is still an issue in the Basic Education level as well, as 14% of rural and 13% of urban teachers mentioned this issue. One of the reasons is the increasing economic hardships in Ecuador due to COVID-19 that have forced families into poverty (Hernandes, 2021). According to an interagency Rapid Gender Scan in Ecuador, led by the international organization CARE (2021), child labor in Ecuador occurs in a higher presence within indigenous children and adolescents from rural communities, working in agriculture and livestock (CARE, 2021).

3.2.2.5 Gender Inequality

An additional insight gained during focus groups shows that the reasons for dropout differ between male and female students. When consulting school principals and DECE professionals from Zone 5, it was prevalent that male students drop out due to paid work responsibilities that allow for economic autonomy, while females drop out due to unpaid domestic labor and teenage pregnancy. Concurrently, 20% of all pregnancies in 2020 in Ecuador were associated with child and adolescent pregnancy (CARE, 2021).

3.3 Literature Review

3.3.1 Overview Re-enrollment

This literature review covers an overview of the importance of school reopening with a focus on the main reasons for temporary and permanent dropout. After past natural disasters and current insights of the impact of the COVID-19 pandemic, the framework ‘A path to recovery’ was jointly created by UNESCO, UNICEF, and the World Bank with a clear focus: ‘Reopening schools should be every country’s highest priority. The cost of keeping schools closed is steep and threatens to hamper a generation of children and youth while widening pre-pandemic disparities.’ (UNESCO, UNICEF & World Bank Group, 2021, p. 6). In order to ensure safe re-enrollment, which is defined as the ongoing effort to bring students back to

schooling (remote or in-person), countries have to address the risk of permanent or temporary dropout as well as temporary reluctance (UNESCO, 2020).

Our consultancy work focuses on the mandate of the Direction of Pedagogical Improvement within the Ministry of Education and therefore two of the main survey results will be addressed: (1) fear of coming back to school because of the pandemic and (2) child labor, as both are within our client's responsibilities.

3.3.2 COVID-19 and Fear of Sending Students Back to School

As the pandemic progresses and schools reopen, there is significant fear and anxiety among families and teachers to send students back to school, with the main concern that schools become transmission centers (Ziauddeen et al., 2021). This insight is also confirmed by the survey in Zone 5, which is a sign of distrust in the ability of schools to be safe spaces during COVID-19. However, creating safe school environments during the pandemic is the main priority according to the 'A Path to Recovery' joint framework (UNESCO, UNICEF & World Bank, 2021). Trust is critical for schools as their purpose of educating is dependent on interpersonal relationships among important stakeholder groups such as families (Hoy & Tarter, 2004; Tschannen-Moran & Gareis, 2015; Santiago et al., 2016). Repairing trust between families and schools should involve an explanation of action, transparency, sense-making, and incentives to prevent future distrust (Dirks et al., 2009).

Worryingly, families' fear of COVID-19 transmissions in schools has three main implications: (1) children are more likely to become depressed, (2) fear is more prevalent in disadvantaged families, and (3) initial school closures led to more skepticism for re-opening.

First, given that the rate of depression among children increased in Ecuador during the pandemic (Asanov et al., 2020), it is important to identify the causes of such a rise. A New Zealand study found that the fear of families is transferred onto the child with an increased possibility for depression related to families'

fear of the pandemic (Jeffs & Walls, 2021). Second, the observed patterns seemed to likely encourage educational inequalities, where fear is more prevalent among disadvantaged families (Woodland et al., 2021). This fact shows the necessity for addressing this issue as disadvantaged families are less likely to have access to remote learning resources (UNICEF, 2020). Third, since the main response to the pandemic was school closures to reduce transmission, it left nations worldwide skeptical of reopening, and therefore it is more challenging to convince families to send their children back to school. This is particularly true in countries with high COVID-19 cases and deaths (Jeffs & Walls, 2021).

Repairing trust can be done with clear and transparent risk communication which acknowledges community priorities and local tolerances for health risks (Hoover et al., 2021). The three main principles for risk communication are: (1) prepare for two-way communication between caregivers and the Ministry, (2) communicate early, be honest and transparent and (3) respect and trust your audience (Leask & Hooker, 2020). The content of this kind of risk communication focuses on how the risk of COVID-19 transmission for children is minimized, how educational potential within schools is ensured, and how the psychological well-being of children is prioritized (Woodland et al., 2021). Additionally, a two-way communication system including all stakeholders is the key to successful risk communication and ensures that people know when and how to implement policies such as safety guidelines (Hoover et al., 2021). Within this process, it is additionally critical that teachers feel safe to come back to in-person classes (Ziauddeen et al., 2021). In summary, the cooperation of teachers, families, policymakers, and physicians allows a smooth transition into in-person learning (Nathwani et al., 2021).

Two cases stand out in handling fear of sending students back to school: Sierra Leone during the Ebola crisis in 2014 and the Philippines during COVID-19 in 2021.

3.3.2.1 Strategies Against Fear in Sierra Leone

The Ebola Crisis led to around 4,000 deaths and the closure of schools for approximately nine months. Sierra Leone managed to drive the school re-enrollment rate to 95% with a focus on mass awareness campaigns and financial incentives. Sierra Leone's major policy for reassuring enrollment was creating mass awareness campaigns with jingles as well as back-to-school committees that included families (UNESCO, 2021). At the core of this policy, with the aim of regaining trust, was informing the public about health and safety essentials, the existence of financial incentives as well as processes for improving mental well-being (UNESCO, 2021). This ensured that stakeholders became aware of existing measures and engaged in creating those that address their needs - a key for successful implementation.

3.3.2.2 Strategies in the Philippines

In 2020, the enrollment rate dropped by 20% but after building an interagency task force, the Philippines managed to raise the gross enrollment rate up to 101.3% compared to 2020, which means students were coming back (CNN Philippines, 2021). As the Philippines started reopening schools, they managed to have close to 100% enrollment in 11 out of 17 regions. Their strategy of reducing barriers focused on two main areas: (1) flexible enrollment dates and (2) flexible enrollment forms. Previously there was a deadline to enroll at the beginning of the school year; by eliminating this regulation, families could enroll their children at any time. Second, digital and printed enrollment forms, used as a data collection tools, were distributed wherever most efficient, such as at kiosks in very rural areas to reach families without internet connection. To ensure that the public was aware of these strategies, media campaigns were launched on social media outlets, local TV, and the radio. In conclusion, a national and local approach has been important for increasing re-enrollment rates in the short and long run (UNESCO, 2021).

3.3.3 Addressing Child Labor through Cash Transfers & Mobile Schools

Child labor continues to be a persistent problem in the world today. According to the most recent global estimates, there were 160 million children involved in child labor in early 2020, which accounts for almost one out of ten of all children worldwide (ILO, 2021). In the context of COVID-19, the pandemic has threatened to further exacerbate this challenge. New estimates suggest that an additional 8.9 million children will be involved in child labor by the end of 2022 as a result of an increase in poverty by the pandemic (ILO, 2021). Equally important, child labor exposes children to some dangerous activities with long-term consequences, such as bodily and mental harm, and can also result in slavery, and economic and sexual exploitation (UNICEF, 2021). According to UNICEF (2021), in almost every case, working children are cut off from schooling and health care, which restricts their fundamental rights and capabilities as well as threatens their future. Historical gender stereotypes have assigned unpaid work such as care activities and domestic labor to women and girls, who spent 1.7 times more than men in the Americas in such activities (ILO, 2018). In the third quarter of 2020, the time women and girls spent on unpaid work was three times higher than that of men in Ecuador, resulting in an estimated added value of US\$51.4 million (Primicias, 2021b).

One way to address child labor and ensure boys and girls return to school is through social protection measures, such as conditional cash transfers to families (ILO, 2021). Another method has been the mobile school, which is a cart on wheels with educational sheets attached to it with the aim of re-enrolling students in schools. These approaches have had a positive impact on fostering “human development, encouraging and stabilizing consumption, and facilitating social cohesion and inclusion” (ILO, 2021).

3.3.3.1 Cash Transfers & Mobile Schools in Nicaragua

In 2005, the government of Nicaragua implemented a cash transfer program called *Atención a Crisis*, which provided cash

grants conditional upon their children's attendance at school and at health check-ups (Macours & Del Carpio, n.d.). The reason that Nicaragua stands out as an example is that its cash transfer program has successfully reduced child labor while having a significantly lower GDP per capita than Ecuador: Nicaragua's GDP per capita was 1,905 USD compared to Ecuador's 5,600 USD in 2020 (World Bank, 2021).

The Abdul Latif Jameel Poverty Action Lab (J-PAL) conducted an evaluation of Nicaragua's cash transfer program between 2005 and 2006. It found that boys in households that received the cash transfer had a significant reduction in child labor in economic activities, particularly in agriculture, compared to other boys (J-PAL, n.d.). The researchers Macours and Del Carpio (n.d.) found that cash transfers were a sufficient incentive to send boys back to school.

Regarding the mobile school, a non-profit organization in Matagalpa, Nicaragua, called *Las Hormiguitas* addresses child labor in the city by using volunteers to support the learning of the children in the organization. Currently, the organization is helping over 100 working children to receive additional support with their academics (Equal Education Fund, 2021). Additionally, the organization uses a psychologist to assist children and family members with their emotional and mental health (Equal Education Fund, 2021). The mobile school has been key in identifying where child laborers congregate and has helped to bring those children to the organization where they can receive academic and psychological support with the aim of re-enrolling them in schools (Equal Education Fund, 2021).

3.3.3.2 Zoom-In: Cash Transfers in Ecuador

In Ecuador, child labor decreased from 2019 to 2020, but it increased during the pandemic - with a strong focus on rural areas, indigenous communities, and girls and adolescent women due to the complex economic and social situation that was aggravated by COVID-19 (Care, 2021). Since 2003, Ecuador has run a conditional 'means-tested' transfers program, targeted at families from the two poorest quintiles of the population which include children younger than 16 years old and people living

with disabilities (Bono Ecuador, ILO, 2021). The implementation of this program was evaluated by two studies in 2006 and 2012 and provided evidence that children between six and 17 years old from beneficiary families were between six and eight percentage points less likely to participate in paid or unpaid work activities, after one year of implementing the program (ILO, 2021).

3.3.4 Two Issues in Conversation

Fear of the pandemic and re-enrollment barriers such as child labor are two key issues preventing students' access to schools in Zone 5 and nationwide, with both being prevalent in marginalized communities. Additionally, both fall under the responsibilities of the Ministry of Education and the national and local governments, where coordination is essential in order to address those challenges and instill a sense of normalcy.

What seems to be missing from current research is an analysis of trends of fear over time in countries and how governments are re-assessing their child labor laws in response to the pandemic. Re-enrollment rates show one side of parents who prioritized their children's education, however, the effect on the family's well-being and their own outcomes are areas for future research. Research should also note how often the fear of the pandemic changes in specific populations and why. This could give greater insight into the trends of fear, and how governments can best respond and create policies aligned with their people's thoughts. Moreover, reports about COVID-19 and its challenges hardly focus on the pandemic being an exacerbator of child labor and its connected implications, as child labor initially decreased due to lockdown procedures but then the number of students working increased because of the additional economic burden on families (CARE, 2021).

Lastly, there were no in-depth studies relating specifically to Ecuadorian families - particularly of Zone 5 as a focus area of this paper - and how they are responding to the COVID-19 crisis from diverse backgrounds and geographic areas. Further research in these areas needs to be done in order to give the

Ministry of Education in Ecuador a better look into what families need to be supported.

3.3.5 Connection to UNESCO Futures of Education

The importance of access to quality education is also emphasized in UNESCO's recent report *Reimagining Our Futures Together: A New Social Contract for Education* (UNESCO, 2021). It establishes the urgency of enabling marginalized groups, such as rural communities, to access quality education that is relevant and considers their context, culture, and circumstances (UNESCO, 2021). In this sense, there are three opportunities that derive from the recommendations of the report, that are relevant to the context of Ecuador. Firstly, the report emphasizes the need for increased collaboration among teachers, for them to become creators of knowledge in a collaborative manner, within an environment of autonomy (UNESCO, 2021, p. 80). Secondly, this new role of teachers can occur in schools that have abandoned immobility and have transformed themselves into a dynamic space for collaboration, no longer marginalizing, excluding, or reproducing inequality (UNESCO, 2021, p. 97). Finally, the report indicates that the generation of partnerships between schools and external institutions, including universities, can help expand education to different times and spaces (UNESCO, 2021, p. 94). This would entail envisioning schools as communities of learners, with an open and flexible character, no longer limited by classrooms (UNESCO, 2021, p. 99). These opportunities serve as a reference for the generation of the following policy alternatives.

3.4 Policy Alternatives

In this section, two sets of alternatives are presented: those that are actionable, meaning that they fall within the scope of our client; and those that are non-actionable (outside of the client's scope). The non-actionable alternatives are relevant to include because this document can be shared by the Ministry to the departments that have the capacity to work on those matters.

3.4.1 Actionable Policies

3.4.1.1 Deployment of Mobile School to Remote Areas

The mobile school is a series of vehicles that transport educational materials to remote areas. They provide non-formal education to children that have little or no access to education (GlobalGiving, n.d.). The mobile school can also identify where child laborers and other children who have dropped out of school in Zone 5 congregate. The mobile school can be piloted in a defined area of Zone 5, and each vehicle will carry three to five people. The Ministry of Education can build partnerships with local citizens and community leaders (as during the initiative *Puntos de Reencuentro*), moving along with the mobile school to remote areas. The mobile school has been successfully implemented in the city of Matagalpa, Nicaragua, where a non-profit organization, *Las Hormiguitas*, has used this tool to reach over one hundred child laborers and has helped them enroll in school (Equal Education Fund, 2021). Through the mobile school, the Ministry of Education in Ecuador can gather information about children and their families and provide assistance based on their needs.

3.4.1.2 Communication Campaign

In Zone 5, 54% of all rural teachers and 58% of all urban teachers mentioned fear of the pandemic as one of the main reasons for school dropout. In order to repair trust that schools are safe, clear two-way communication is needed (Hoover et al., 2021). Trust is best achieved if it is approached locally (Hoover et al., 2021). As one major challenge is the gathering of information of what is happening on the ground, more bottom-up communication is needed to address the needs of the community. After gaining information, a communication campaign offers the opportunity to inform families about health guidelines and potential incentives to come back to school. Such a campaign should include information about important factors such as the Institutional Education Continuity Plan (PICE), a process for reopening schools, and high vaccination rates, as 80% of teachers in Ecuador were fully vaccinated as of September 2021 (UNESCO, UNICEF & World Bank, 2021). At this moment, (mis)information is spread across social media

platforms such as WhatsApp; therefore, a communication campaign should reach the public on the same level. Those without internet access can be informed via TV or radio as the Ministry's *Educa Contigo* radio program and the *Aprender la Tele* TV program both reached 93% of the homes in Ecuador (UNICEF, n.d.). In conclusion, a two-way communication stream will help to instill confidence in people and rebuild trust for returning to in-person classes.

3.4.1.3 Learning Support System

This alternative can be developed through a partnership between local teachers, volunteer college students, community leaders, and non-governmental organizations personnel. They can be led and trained by the Ministry of Education, aiming to support the learning of children aged 5-14 in rural areas who lack internet connectivity. Their learning currently occurs through learning packages provided by teachers through home visits. If family incomes are lacking, students' prospects of remaining in the education system are compromised. In this sense, the Learning Support System could sustain home visits and implement them regularly to high-need areas in Zone 5 to provide additional academic support. Partnerships are essential to this alternative, as there has been a reduction of 6% of teachers in the system in Zone 5 (Ministry of Education Ecuador, 2021b), with remaining teachers stressed due to the constant traveling to deliver learning materials to their students, as was highlighted in our focus group interviews with them. Partnerships are also beneficial, as college volunteers require community work to graduate, and NGOs benefit from the support and access the Ministry can provide when developing programs in communities.

3.4.2 Non-Actionable Policies

3.4.2.1 Cash Transfers

Given the economic challenges that the pandemic has imposed on Ecuador, implementing social protection measures such as conditional cash transfer programs can accelerate access to education and help reduce child labor in Zone 5. The Ministry

of Education has the opportunity to utilize legal instruments currently in place in Ecuador and coordinate with the Ministry of Labor and the Ministry of Economic and Social Inclusion to provide economic support stipends and ensure that girls and women especially can access quality educational opportunities.

3.4.2.2 Infrastructure Investments

Improvement in infrastructure was one of the major aspects mentioned by teachers for accelerating learning in classrooms/schools, according to our survey in Zone 5. Teachers mentioned more space, biosafety measures, and clean water, among others to be the most needed infrastructure improvements. In Zone 5, a lack of income led to a migration from private to public schools (Olsen, 2020) and according to our focus groups, left classrooms overcrowded. Improving infrastructure, such as establishing biosecurity measures, can help to reduce the fear of coming back to school and rebuild trust (Hoover et al., 2021).

3.4.3 Policy Alternatives Matrix

This section focuses on rating the previously mentioned alternatives on a scale from 1 (low) to 5 (high). The criteria were collaboratively established with the client and are addressed in order of importance. Here it can be seen that mobile schools and learning support systems reach the same score and both will be combined in the final recommendation.

1. *Urgency*: How immediate does this issue need to be resolved?
2. *Feasibility*: How easy is the implementation of the policy?
3. *Cost*: Is this policy within the financial constraints of the Ministry?
4. *Effectiveness*: How effectively does this policy address the issue?

Table 3.4.1: Policy Matrix

#	Scale 1-5* (low - high)	1. Deployment of Mobile School	2. Campaigns	3. Learning Support System	4. Cash Transfer	5. Infrastructure improvement
1	Urgency	4	2	3	5	5
2	Feasibility	4	5	3	1	1
3	Cost	3	4	4	2	1
4	Effectiveness	4	2	4	4	3
	Overall Score	3.5	3.25	3.5	3	2.5

*Scale from 1 being the lowest to 5 being the highest

3.5 Policy Recommendation

3.5.1 Description

Based on the policy alternative matrix above, the final policy recommendation is a combination of two highly ranked policy alternatives in terms of overall feasibility: (1) Mobile School and (2) Learning Support System.

The policy recommendation the research team makes is a Program called 'ERA', *Ecuador Recupera Aprendizajes*, or *Ecuador Recovers Learning*, which will be led by the Ministry of Education and will support children and adolescents (ages 5-14) in rural areas who are at risk of dropping out or have already left school.

ERA aligns with the Ministry of Education's plan for a progressive and voluntary return to school. It emphasizes the need to strengthen rural and community-based education, by fostering the use of a pedagogical model that ensures quality and relevance (Ministry of Education Ecuador, n.d.). Therefore, the focus of ERA is mainly rural. Furthermore, ERA addresses the main challenge in Zone 5 according to the survey results this document presents: access to education for children that do not attend classes in person or online but are rather still learning through packages, those that are temporarily not learning, and/or might have started working.

One project within ERA is called the *Escuela Móvil* (Mobile School), consisting of a mobile brigade deployed in rural areas that provides informal learning experiences through activities in posters and sheets; and provides academic and psychological support through home visits while sharing learning materials and informational resources. Both the informal learning and learning support activities are developed by a Learning Support Team (LST) composed of Ministry of Education personnel, non-governmental organizations personnel, university students, volunteers, and community leaders. This coordination is essential due to a reduction in the number of teachers in the Ecuadorian education system, which reached 5.87 percentage points between 2019 and 2021 (Ministry of Education Ecuador, 2021c), and affects around 800,000 students from all regions (El Comercio, 2021).

This policy is aimed at collecting information from children, their families, and the community, to identify the challenges they are facing. It represents an opportunity to implement a bottom-up approach for information collection and feedback, an idea that aligns with the vision of the Ministry. The home visits this program will offer are intended to strengthen the presence of the Ministry of Education on the ground, help students with their assignments, reinforce concepts, and also provide psychological support.

In order to have a successful implementation, a pilot program in Zone 5 will allow deeper insights into the strengths, achievements, and needs for improvement of the program.

3.5.2 Roles and Implementation of the ERA Program

The implementation of the ERA program will require partnerships between different stakeholders, with each having its own purpose. Partners would include, but are not limited to, the Ministry of Education in Zone 5 (lead-implementing partner); public and private universities and academia (implementing partner); international cooperation organizations and non-governmental organizations (implementing partner - funders); community leadership (implementing partner - connectors); the private sector (funder); and state bodies such as the Ministry of Economic and Social Inclusion, the Ministry of Labor and the Human Rights Secretariat.

The implementation of the ERA program will be divided into three phases. A Preparation Phase will include building partnerships with state parties and local non-governmental organizations; the selection of intervention areas; and the definition and adaptation of pedagogical tools. An Implementation Phase will include the deployment of the ERA Learning Support Teams, collection of information from families, award of scholarships, and the exchange of information between implementing partner organizations. The final phase, Evaluation, will consist of evaluating the results and the exchange of experiences and best practices.

3.6 Conclusion

Addressing the problems of families' fear to send children to school, lack of resources and internet connection, and child labor will require collaboration between our client and key stakeholders, both in the private and public sectors. Aside from addressing the impact that the pandemic had on access to education, which has been the main challenge in Zone 5, we also must harness the opportunities of this crisis. COVID-19 has presented our client the opportunity to establish long-lasting partnerships with other stakeholders who also care about finding ways to expand access to education for vulnerable children. The policy recommendation presented in this paper will help inform the client about how to make good use of its resources, whom it can partner with to complement the areas in

need of assistance, and collectively, these stakeholders can help improve the situation for children who have been at a disadvantage due to the social barriers they face. The pandemic has caused pain and trauma as families have lost their loved ones, lost their jobs, or have become depressed due to the isolation of lockdowns that were imposed at the beginning of the pandemic. The pain may never go away, but we can begin taking steps to build back better, to create a system of inclusivity, and one that is strong under times of uncertainty.

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Chapter Four. Israel

Reimagining Education for Equity: An Analysis of Israel's Etgar Program

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Abstract

UNESCO's recent report "Reimagining Our Futures Together: A New Social Contract for Education" (UNESCO, 2021), calls for a new social contract for education to examine three essential questions; (1) What should education systems continue doing?, (2) What should they abandon?, and (3) What needs to be creatively reimagined afresh?. This chapter provides an analysis of the Israeli Etgar program for "Youth At-Risk" through the lens of these three questions. Designed to combat high school dropout rates among marginalized youth, the Etgar program prioritizes systems of support for both its teachers and students centered around a vision of student success, aligning substantially with the spirit of the report. Areas of recommendations, concluded through an analysis of areas of misalignment with UNESCO's report, are: (1) to increase Etgar students' motivation for learning by infusing existing student-teacher mentoring mechanisms with guided future orientation discussions, and (2) to conduct a designated survey for teachers to inform evidence-based policymaking to address an existing gap in specialized training for teachers working with Etgar students.

In this chapter we examine the "Etgar" program administered by the S.H.R. ("Youth At-Risk" in Hebrew) division within the Israeli Ministry of Education (MoE), designed in the 1990s to combat high school drop-out, increase matriculation certificate eligibility, and develop self-efficacy in youths aged 14-18 characterized as "at-risk" by the government. Despite a

significant reduction in dropout rates since the program's inception (Arkin & Cojocaru, 2018), an 11% gap in eligibility for the matriculation certificate persists between Etgar students and the general student population (Klein, 2021). We analyze what measures can be taken to mitigate this gap and illuminate opportunities for strengthening the program by examining Etgar through the lens of the most relevant tenets of UNESCO's recent report *Reimagining Our Futures Together* (UNESCO, 2021). Based on research and analysis, we posit that the program offers insights into how educational policies can mitigate social inequities through commitment to education as a public and common good (UNESCO, 2021). We also identify opportunities for enhancement through incorporation of future-oriented pedagogies and through capacity-building of all teachers working with these students. As a preliminary note, we chose to use the term "vulnerable youth" instead of "youth at-risk" when necessary in an attempt to promote an asset-based terminology that fosters social inclusion of historically marginalized communities (Riele, 2006). We start our discussion by describing the background of vulnerable youth in Israel while outlining the educational support offered by the government. We then present Etgar's theory of action, key components of implementation, and results based on a series of in-depth interviews with key MoE S.H.R division officials, teachers, and district level administrators. We use the UNESCO report as a framework to identify opportunities to enhance the program's response to vulnerable youths' needs and thus to potentially address root causes for the matriculation eligibility gap. We start this analysis by highlighting how the program already substantially aligns with the spirit and recommendations of the UNESCO report. Areas of misalignment with the report informed our secondary research, aimed at identifying actionable policy recommendations. Concluding our analysis of available alternatives, we make two recommendations to the S.H.R. division: (1) to infuse the existing student-teacher mentoring mechanism with guided future orientation discussions to increase Etgar students' motivation for learning, and (2) to conduct a designated survey for teachers to inform evidence-based policymaking to address an identified gap in

specialized training between teachers working with Etgar students.

4.2 Vulnerable Youth in Israel

We start with contextual background on vulnerable youth in Israel, briefly describing demographics, common challenges, and the government's educational response.

The Israeli government defines vulnerable youth as minors between the ages of 12-18 who have not been diagnosed with a cognitive or mental disorder but are exposed to one or more of the following risk factors: experiencing potential physical harm in their immediate environment, engaged in criminal behavior, using drugs, demonstrating low academic achievements, or exhibiting social-emotional challenges such as difficulties in creating relationships or postponing satisfaction (Szabo-Lael, 2017). Of the more than two million children living in Israel, approximately 330,000 (~16.5%) experience adverse conditions, including but not limited to those previously listed and low socio-economic status (SES) (Ministry of Labor, Social Affairs and Services, n.d).

Low SES communities are historically and politically marginalized, and differ in their cultural, demographic, and socioeconomic composition. A study conducted by Szabo-Lael (2017) found that the demographic with the highest measure of vulnerable children and youth come from Arab communities, ranging from 37%- 47% of the demographic's population. Cited contributing factors include low literacy rates and a concentration in remote areas as limiting opportunities for high quality employment and social movement. Other demographics noted in this study as having high concentrations of vulnerable youth include the Jewish ultra-orthodox sector (12% of total youth identified) and immigrant communities (9% of total youth identified).

Another study indicates that youth from historically marginalized communities are apt to experience cultural alienation and social isolation, potentially contributing to lower educational attainment (Khattab et al., 2011; Platt, 2005). Szabo-

Lael (2017) further supports this through examining three areas of common challenges: family-related issues, developmental and scholastic functioning, and social-emotional capacities. The study indicates that 73% of surveyed youth were identified to have experienced problems with family-related issues. Over half of surveyed youth (59%) were identified to have difficulties with learning and acquiring skills, including low functioning or low scholastic achievements, lack of learning involvement, and disruptiveness and nonacceptance of authority. Furthermore, roughly half of surveyed youth (47%) were identified as having experienced issues with mental health, problems with social integration, adjustment difficulties, or the display of aggressive behaviors. 40% of surveyed youth were identified as experiencing difficulties in all three areas.

4.2.1 Educational Response to Support Vulnerable Youth

The MoE oversees and funds both public and private education sectors, enforcing the Compulsory Education Law (1949) which mandates free and compulsory public education between ages 3 and 18 (Knesset, 2015). The public schooling sector serves 72% of Israeli students (Central Bureau of Statistics, 2021a) and consists of five levels of educational attainment: pre-primary (3 years), primary (6 years), secondary (3 years of lower secondary, 3 of upper secondary), and higher education. Instruction, in Hebrew/Arabic, follows a nationally centralized curriculum (Knesset, 2015).

To support the needs of vulnerable youth, the MoE's S.H.R division administers several different programs, including boarding schools and youth centers that provide enriching after-school activities and vocational opportunities (MoE, n.d.(a)). Additionally, it oversees in-school programs to help vulnerable youth integrate in public middle and high schools. In particular, these programs are meant to support vulnerable students to succeed in the high-stakes matriculation tests nationally administered at the secondary level. These tests determine eligibility for the matriculation certificate, required for higher education and employment opportunities in addition to high school graduation (Bahar, 2020). To help vulnerable youth to

complete a matriculation certificate, the MoE invests substantial funds (350 million ILS or ~90.67 million USD) annually in in-school S.H.R.-programs (Bahar, 2020), which collectively reach 69,456 students (Klein, 2021). One of these programs is called “Etgar” (Hebrew for “Challenge”), serving the least performing students on the academic spectrum and who are on the cusp of dropping out (MoE, 2021). The Etgar program supports 32,085 students, 46% of the population supported through in-school interventions (Klein, 2021). Next, we detail the program’s components, to analyze whether its current structure comprehensively addresses the multifaceted challenges vulnerable youth face.

4.3 Theory of Action, Implementation and Results

The Etgar program’s objectives are to decrease dropout rates in high schools and to increase student learning outcomes as reflected in student eligibility for the matriculation certificate (MoE, 2021). In essence, it is a tracking program established in the mid-1990s which creates distinct cohorts in public high schools of 20-25 Etgar students per grade level. Each cohort studies the nationally centralized curriculum together through grades 10-12 while receiving specialized educational support (Rama, 2019). Below, we present Etgar’s theory of action, implementation, and results based on interviews with S.H.R. division and district officials, Etgar teachers, official documents, and available independent data.

4.3.1 Etgar’s Context and Theory of Action

To select students, S.H.R. district representatives work with middle schools to identify students who accumulated significant learning gaps in 9th grade (quantified as 3-4 failing grades and an average of 50-60 on a grading scale of 1-100, in core subjects), who are likely to drop out or fail to complete a matriculation certificate (MoE, n.d(a)). When the S.H.R. division opens a new Etgar class, at least 70% of its students come from low SES, according to the national SES index (MoE, 2021). The division also considers students’ challenges in adapting to school

demands and ineffective student support systems, both personal and institutional (MoE, 2021; Arkin & Cojocaru, 2018). Etgar's theory of action posits that if the program funds smaller class sizes (20-25 students compared to 30-35 in standard classes); increases teacher-student instruction hours; provides targeted teacher professional development; designates institutionalized support systems; employs therapeutic pedagogy; and implements individualized education plans to support selected least-performing students, then the program will decrease dropout rates and increase matriculation eligibility (MoE, n.d(a)).

4.3.2 Program's Key Elements and Implementation

We utilize three of Fernando Reimers' five perspectives on educational change (2020a) – psychological, professional, and institutional – to explain Etgar's key programmatic elements. From a psychological perspective, at its core, this program seeks to shift vulnerable youths' mindset about learning and their abilities to thrive in academic settings. It emphasizes a pedagogical approach developed by the MoE called "therapeutic pedagogy," based on a presumption that students are competent when provided with equitable resources and opportunities (Moyal, 2018). Coupled with increased teaching resources, the therapeutic pedagogy fosters students' social-emotional capacities to manage daily stressors that compromise engagement in learning (Jones et al., 2019). It is implemented through building caring student-teacher relationships beyond regular teaching hours in smaller class settings, empowering teaching methods addressing low self-efficacy and learning difficulties, ongoing home-school connections, and individualized education plans to ensure students meet their learning goals (Interview A).

Recognizing teachers' key role in the successful implementation of the therapeutic pedagogy approach, Etgar provides its core teachers with specialized teacher training (Interview C). Hence, the professionalization aspect of this program is another important element. The structure of Etgar teacher orientation and continued professional development (PD) is designed to

develop teachers' knowledge and tools to work with vulnerable youth. These trainings foster an asset-based perception of students, reinforcing that emotional, cultural, linguistic, and executive functioning gaps present in the population are not the students' fault, but rather a product of societal discrepancies. Teachers are also trained to use pedagogies and mentoring methods to build trusting relationships with students who have experienced some form of trauma or neglect (Research & Development Department, 2021). Through this nationally administered training, the division creates a common thread of the key values of Etgar teachers (Interview C; Arkin & Cojocaru, 2018).

However, only "core" Etgar teachers are required to pass these training sessions. For context, the typical structure of Israeli high schools divides students into cohorts, or homerooms, in each grade level. Each cohort is assigned a homeroom teacher who serves as an academic mentor while also teaching his or her subject of expertise. In most cases, homeroom teachers are assigned to cohorts randomly. However, the one Etgar cohort in each grade level is assigned an Etgar core teacher (hereinafter: homeroom teacher) who is specially trained by the S.H.R. division. Importantly, Etgar students are also taught by other teachers in school in addition to their S.H.R.-trained homeroom teacher. In fact, most classes are taught by other teachers (hereinafter: professional teachers). Though professional teachers can access vulnerable youth-oriented PD, they are not required to do so, and in many cases are not equipped to sufficiently understand these students' unique backgrounds (Interviews C, G).

From an institutional perspective, a key element of Etgar implementation is intra-institutional collaboration to hold schools accountable for both dropout rates and student eligibility for the matriculation certificate to prevent schools from failing to adequately assist students who would not complete their matriculation certificate. The commitment to address the changing needs of Etgar students and teachers is advanced at all levels through collaboration and connecting decision-makers to needs on the ground (Interview F). Designated S.H.R. officials oversee successful implementation

of Etgar programs in each regional district. They also employ S.H.R. “instructors” who are senior teachers that serve as liaisons between the district and schools. S.H.R instructors are also the main support mechanism for teachers, providing emotional and pedagogical guidance for teachers facing different challenges with their students, liaising between teachers and school administrations, and empowering teachers’ voices at the school level (Interview F). Also at the school level, a designated lead S.H.R. coordinator, who is also a S.H.R. teacher, provides closer and ongoing pedagogical support for students and teachers (Interview A). This structure appears effective, as a study conducted by a governmental research body external to the MoE found that 85% of Etgar teachers felt sufficiently supported in their work, 91% attested that schools highly prioritize the program, and 96% affirmed schools are actively engaged in supporting students’ success (Rama, 2019).

4.3.3 Program Results

According to the MoE’s definition of success, i.e., decreasing dropout rates and increasing student matriculation eligibility, the program is considered successful (Interview A). While in 2017, 1.67% of Etgar students dropped out, in 2020 only 0.94% did (Klein, 2021), compared to the national average of 1.6% (Heib & Lazar, 2020). Similarly, 54.96% of Etgar students were eligible for the matriculation certificate in 2017 compared to 63% in 2020 (Klein, 2021). We note that the COVID-19 pandemic may have affected 2020-2021 results, though we do not pursue this topic because it is outside the scope of our research. Etgar’s successful implementation is also supported by data collected from principals, teachers, and participating students (Rama, 2019). Furthermore, the MoE also relies on a controlled study by the Bank of Israel (Bahar, 2020) on a comparable in-school program for vulnerable youth, called M.B.R., as additional evidence to the Etgar’s success (Interviews A & E). This study found that a decline of 3.2% in student dropout and a 4.9% increase in matriculation eligibility between 2010-2015 can be causally attributed to the M.B.R. program, concluding that the return of investment in these programs is more than double to the Israeli economy (Bahar, 2020). We note that the MoE’s

figures on Etgar students were not collected in controlled studies, hence student learning outcomes could have been affected by factors external to the program. No program evaluation has been conducted to date to directly assess Etgar's impact (Interview E).

Still, an 11% gap of matriculation eligibility persists between Etgar students and the wider population (Klein, 2021). Considering this gap alongside a broader picture of increasing socio-economic disparities seen nationally (Knesset, 2017), we wonder how the program can be strengthened to increase its impact on student learning outcomes.

4.4 Alignment Between Etgar and UNESCO Report Key Themes

4.4.1 UNESCO's Report as a Framework for Analysis

To analyze how the Etgar program can be enhanced, we utilize the UNESCO report (2021), which calls for a broad social dialogue focused on harnessing the potential of education to respond to the great challenges of our time, including rising economic and social disparities (2021, p. 10). In the following sections, we first articulate two key examples of Etgar's alignment with the report to offer insights into how educational policies can mitigate social inequalities through commitment to education as a public and common good, a core tenet of the report. Then, we use the report as a framework to identify opportunities to further advance the program's impact on students' learning outcomes through analyzing misalignment between the program and the report's ideas.

4.4.2 Teacher Professionalization

In its approach to Etgar homeroom teachers, the S.H.R. division's teacher training and PD opportunities align with the report's call for recognizing teachers as key to transformative educational reform. The program especially reflects these principles from the report: (1) enhancing teamwork and collaboration amongst teachers, (2) promoting teachers as

intellectually engaged learners and reflective practitioners, (3) supporting teacher autonomy through quality professional development, and (4) uplifting teacher voice in public dialogue and decision-making spheres (UNESCO, 2021).

Etgar teacher training and PD provide spaces for networking, creating communities of practice within and outside districts (Interview C) – essential for homeroom teachers’ deeper learning and growth (Reimers, 2020b). Novice Etgar teachers participate in annual district-led orientations, an induction that creates immediate community and establishes common norms amongst Etgar teachers across Israel (Interview C). Throughout Etgar teachers’ careers, the S.H.R. division and districts collaborate to provide PD opportunities on instructional methods for Etgar students, like “establishing and maintaining emotional connections despite remote learning during the pandemic” (MoE, 2020). PD sessions also foster teachers’ self-efficacy, training them to autonomously work with students’ families according to their needs (Interview E).

To incorporate Etgar teachers’ voice in PD, the division builds intentional yearly objectives for S.H.R.-related PD based on teacher surveys and data collected from districts (Interview C). For example, before national PD sessions during the pandemic, teachers were surveyed on what innovations and practices they developed to address Etgar students’ challenges with remote learning and additional economic constraints. These practices were shared during PD, while selected teachers were empowered to present their ideas (MoE, 2021; Interviews A, C, & G). Teacher voice and knowledge is also crucial in programmatic decision-making. Each year the division sets national objectives for the entire program based on information collected from teachers, including problems that teachers identified through surveys and direct feedback. This information informs the division’s approach to reaching the “next level” of attainment to continue advancing the learning of all (Interview C), a key characteristic of learning organizations (UNESCO, 2021; Kools & Stoll, 2017).

Nonetheless, much of the program’s success relies on dedicated teachers willing to work around the clock (Interviews D, G, & J) without additional pay commensurate with their

responsibilities. For this reason, we see opportunities to enhance teacher support mechanisms by collecting data on Etgar teacher retention and wellbeing. It should be noted that the S.H.R. division is considering launching a process of creating a separate license for teachers working with vulnerable youth, recognizing that this profession requires a distinct set of tools teachers should acquire during academic training. This licensure would enable better compensation for these teachers through a formal qualification. We view this initiative as another form of the division's commitment to teacher professionalization.

4.4.3 Safeguarding Schools

The institutional structure of the program aims to ensure schools operate as safeguarding and transforming spaces, providing students possibilities unavailable for them elsewhere (UNESCO, 2021). To achieve this goal, the program uses two mechanisms: (1) data collection to promote school accountability, and (2) strengthened home-school relationships.

In addition to academic progress in each subject, the S.H.R. division collects data on each student's social-emotional protective or risk factors through a "dynamic-holistic mapping tool," an extensive digital spreadsheet (Interview D). This data collection instrument allows teachers and school administrators to individualize interventions for students and adjust policies at the regional, district, and national level. From a safeguarding perspective, the mapping tool is core to the program's ability to rally stakeholders around data to inform continuous goal setting. This spreadsheet tool, developed at the national level and filled out four times a year by homeroom teachers for each student, provides a holistic snapshot of each student and an opportunity to intervene based on an examination of students' academic progress considered against typical learning curves, homeroom teacher's assessment, and the potential of identified risk factors to impact students' progress (Interview D). Categories include students' academic performance, mental health, learning disabilities diagnosis, social-emotional skills like persistence and self-regulation, home factors, and special strengths and hobbies.

This tool illustrates Etgar’s commitment to inclusivity and equity through adapting learning to students’ needs (Interview C).

Secondly, Etgar emphasizes strong home-school connections, reflecting the report’s notion that schools are inclusive “centers of wellbeing” (UNESCO, 2021). Made feasible by small class sizes, teachers seek to mentor students by understanding their backgrounds and daily challenges through visiting each child’s home at least once a year. Teachers receive training on how to enter homes, facilitate meetings, and help parents see their child through an asset-based perspective. During home visits, teachers create “contracts” with students and families, establish learning goals and strengthen home-school connections, which increase parental engagement in response to teachers who value students’ needs, assets, and cultures (Interview C; From a Nation at Risk to a Nation at Hope, 2018).

4.5 Opportunities to Enhance Etgar Based on the UNESCO Report

4.5.1 Opportunities Based on Misalignment with the Report

Despite considerable alignment with the report, we find opportunities to build on the program’s success and align it with the report’s ideas of (1) implementing authentic and future-oriented pedagogies, and (2) building professional teacher capacity. Though we are not positioned to research the root causes of the core problem (the 11% matriculation eligibility gap), we selected these areas of opportunity based on our analysis of misalignment with the UNESCO report and evidence (e.g., interviews, quantitative data, and secondary research) that allowed us to assess the program’s theory of action and implementation.

The UNESCO report puts particular emphasis on authentic, relevant learning that helps students make connections between what they learn, their own values, and the world they inhabit. By facilitating conversations around authentic tasks and future-oriented goals, schools can help students visualize how their current learning influences their future, construct the life they

wish for themselves, and become lifelong learners. The report also cautions against high-stakes external examinations dictating teaching and learning at the school level. Hence, we identify a gap between UNESCO's recommendations and Etgar's focus on the matriculation certificate, particularly in the program's assumption (Interviews G & J) that (1) earning a matriculation certificate constitutes an inherently motivating and future-oriented goal for students, and (2) the importance of the matriculation certificate justifies a narrow curricular focus that limits student choice and autonomy.

Our findings show that Etgar works hard to prepare students for matriculation eligibility but may be missing opportunities to motivate students who can't envision how the matriculation certificate opens up future opportunities. Research suggests that assessments, curriculum, and standards have limited effect on students unless they are actively engaged and emotionally and cognitively invested in their learning (From a Nation at Risk to a Nation at Hope, 2018; Allensworth et al., 2018). Currently, the program's focus is on the short-term goal of passing the matriculation exams. The program's vision is that passing the matriculation exam is key to a better life, commanding a higher paying salary, and/or securing a pathway to higher education (Interviews G, J, & I). To advance new learning experiences within the strict matriculation examination system, in 2014 the MoE launched the "Meaningful Learning" reform, where 30% of students' final grade for different matriculation subjects would be calculated by internal assessments designed by schools and 70% by nationally administered tests (MoE, n.d.(b)). Though schools are encouraged to use these internal assessments for project-based learning, there is no data tracking whether and how schools actually implement this recommendation, and MoE communication suggests the system remains largely test-focused (Interview E).

While completing a matriculation certificate undeniably broadens future opportunities for students in Israel, the program leaves little room for student voice in what and how they learn (Interviews A, C, & E), limiting opportunities to foster intrinsic motivation through student choice and autonomy (Deci & Ryan, 2008). The program also does not

sufficiently focus on opportunities for project- and problem-based learning (UNESCO, 2021), especially recommended for engaging students from low SES backgrounds (Anderson & Pešikan, 2016).

Additionally, the strict view of the matriculation certificate as students' ultimate goal does not allow for much future-oriented discussion about pathways students could take post-graduation or imagine how the certificate will help them achieve their goals. Research shows that adolescence is a time in which people begin to plan their future aspirations, which can motivate and regulate individuals' behavior towards their hoped-for future (Israel, 2020). Literature on vulnerable youth, in particular, highlights the importance of future orientation, including expectations, hopes, and fears around domains like jobs and education (Sulimani-Aidan & Melkman, 2021). Research also indicates that marginalized adolescents' limited access to social and personal capital negatively impacts their future orientation (Arnett, 2016) and results in disinclination to plan for and invest in their futures (Sulimani-Aidan & Melkman, 2018). Hence, engaging students in authentic learning tasks connected to matriculation test material may help students visualize long-term outcomes from the short-term goal of the matriculation certificate.

The second area of opportunity we identified, building professional teachers' capacity to support Etgar students, arises from misalignment with the UNESCO report's strong emphasis on teacher collaboration and co-creation while ensuring that schools are a platform for cooperation, care, and change (UNESCO, 2021). Accordingly, the program could foster more collaboration between homeroom and professional teachers to promote a healthy school ecosystem for Etgar students daily.

Research documents the importance of teacher preparation and collaboration in supporting students from low SES. According to Bronfenbrenner's ecological systems theory (1979), an individual's development is shaped by everything in their surrounding environment. Therefore, Etgar students' daily person-to-person interactions with professional teachers could be considered a key contributor to their healthy development. Studies suggest that close connections with adults at school serve as a key factor for reducing dropout rates (Finn, 1989;

Garibaldi, 1992; Newman, 1981; Sanders & Rivers, 1996) and that students' attachment to teachers and commitment to school are linked to higher academic achievement (Payne et al., 2003). Hence, all adults working with vulnerable youth are equally implicated in developing caring relationships and creating school environments that encourage students' feelings of belonging and mitigate dropout (Ayalon, 2012). While homeroom teachers receive comprehensive training, there are no corresponding mechanisms to train professional teachers in relationship-building and asset-based instructional methods. Indeed, one professional teacher confirmed that most professional teachers do not understand the emotional issues underpinning students' lack of motivation and self-regulation, illuminating a possible gap in the program's theory of action since many adults working with Etgar students are not trained to do so (Interview H).

Research also highlights the importance of collective teacher efficacy – when teachers believe that their combined efforts can increase positive outcomes for students – in protecting against dropout (Donohoo & Katz, 2017) and enhancing equitable and academic outcomes for students from low SES (Klassen, 2010; Leverett, 2002). Strategies to increase collective capacity include teachers learning from “role models,” typically colleagues working with the same students (Hoy et al., 2002), and “vicarious experiences” in which educators see how colleagues faced with the same challenges perform well (Donohoo & Katz, 2017). An interview with an Etgar homeroom teacher suggests that homeroom teachers rarely share practices with professional teachers, raising a dual need to train professional teachers and to increase collaboration among professional and homeroom teachers (Interview G).

Lastly, we identified potential misalignment between Etgar's mandated use of the centralized curriculum and the report's call for curricula that value pluralism and sustain diverse cultures (UNESCO, 2021). Since the prescribed national curriculum is not designed around the diverse demographics of Etgar students, we suspect the program's content is neither culturally-sustaining (Paris, 2012) nor intentionally responsive to students' funds of knowledge (Moll et al., 1992). The S.H.R. division

recognizes this curricular gap and trains its teachers to connect and leverage students' cultural backgrounds in their dialogue and where possible in the classroom as part of the therapeutic pedagogy approach (Interview E; Research & Development Department, 2021). We do not pursue recommendations in this area due to the scope of the division's authority but recognize an opportunity for future research.

4.5.2 Selection of Criteria for Analysis

Bardach's *Eightfold Path for Policy Analysis* (2012) guided our analysis to produce viable policy recommendations for both areas of opportunity. We relied on academic research and the UNESCO report to generate policy alternatives, evaluated them against four chosen criteria, and analyzed trade-offs. The four criteria are: (1) **Effectiveness/Equity**: given this program's purpose to mitigate socio-economic inequalities, this criterion evaluates the degree to which a policy alternative contributes to closing the 11% matriculation eligibility gap and creating more equitable opportunities for Etgar students; (2) **Cost**: we aim to make recommendations that allow the S.H.R. division to achieve the greatest impact with the fewest required resources; (3) **Administrative feasibility**: while the S.H.R. division has autonomy over programmatic components like teacher training and funding, some core components like curriculum are decided at other MoE divisions while regional districts and schools have autonomy over operational components due to the system's decentralized nature. This criterion measures the degree to which recommendations fall within the division's purview; (4) **Practicality**: we evaluate whether the policy alternatives' implementation fits with current information and resources, or whether it would require more research, funding, or significant systematic changes.

4.5.3 Analyzing Alternatives for Policy Recommendations

We offer alternatives for each area of opportunity, evaluate options against the four criteria, and analyze tradeoffs to make our final recommendations to the S.H.R. division.

4.5.3.1 Future-Oriented Pedagogies

Based on research and UNESCO's report, we suggest that the program add another layer of motivation for students to invest in matriculation studies and thus increase matriculation eligibility. We offer a policy outcome to support students in making explicit connections between what they learn and their current and future goals, identifying three alternatives to help students envision their lives beyond the matriculation test.

Future-Oriented Teacher Mentoring

The first alternative builds on the program's existing teacher-mentorship mechanisms to help students connect current learnings to their own personal futures. Leveraging the existing practice of home visits would not only require limited costs, but could also be an effective way to implement this policy outcome equitably as teachers already have access and are trained to mentor their students in their personal lives. By engaging students and families in beginning-of-year goal setting to incorporate post-graduation discussions, this alternative creates and sustains space for students to imagine and articulate goals – for example, envisioning their military service and/or employment opportunities – and revisit them throughout the program, building opportunities to reflect on the relationship between matriculation course content and future opportunities while enhancing student autonomy and self-efficacy. This process could increase students' motivation to achieve matriculation eligibility while offering teachers and families a window to help students shape their desired futures.

Despite these benefits, this alternative would require a shift in mindsets from the short-term goal setting of matriculation achievement to a long-term vision. Nonetheless, the whole program is built around teachers' agency and capacity to create meaningful relationships with their students, and this alternative could easily fit within teachers' existing therapeutic pedagogy framework. In terms of administrative feasibility, the S.H.R. division and district instructors can provide guidelines and training for teachers to facilitate these goal-setting discussions. Moreover, the division could monitor implementation by adding a section to the dynamic-holistic mapping tool that elaborates

on students' long-term goals in addition to short-term academic goals. The practicality of this alternative is high and cost is low as teachers already provide mentorship through home visits, goal-setting mechanisms, and commitment to building strong teacher-student relationships. This simple alternative thus expands on existing mechanisms to individualize student support by infusing a future-oriented outlook that fosters student growth and motivation.

Post-Graduation Modeling Through Alumni Mentoring Program

Our second alternative to help students link current learning to future opportunities is based on ecological developmental models emphasizing the effect of peer relationships on future orientation and self-agency of Israeli youth (Seginer, 2009). Hence, we suggest enriching students' social connections with young alumni who successfully completed the program and providing alternative models to their future that can "ameliorate stigmatized individuals' self-perceptions and performance behaviors" (Rivera & Benitez, 2016). To this end, we recommend connecting current students with successful former Etgar students through mentorship programs. Some alumni who have finished military service or university already participate in programmatic events like pre-matriculation test "marathons" (Interview G). Formalizing a mentorship program could enable current students to envision themselves in successful futures, engage with those who can relate to their daily struggles, learn coping tools that teachers might not relate to, and see models of success in overcoming social inequity. Additionally, providing continued support to alumni through trained leadership opportunities, either voluntary or paid, reinforces Etgar's commitment to students' success. Lockwood & Kunda (1997) suggest, however, that inviting mainly "superstars," i.e., outstanding successful alumni, to serve as mentors might have a debilitating impact for some students. While the hope is alumni mentors would model other potential routes, their impact essentially depends on Etgar students' perceived attainability of their mentors' success; students might be inspired if they believe that they can attain comparable

success, but alternatively could also be demoralized and deflated if they do not.

As there is already a mechanism of communication with former students, this alternative appears to be administratively feasible, although we do not have evidence that the division could monitor its implementation. Its practicality is also questionable, as there are more than 30,000 students in Etgar. It would be complicated to scale a successful mentorship program that would be equally available for all students in similar quality without existing infrastructure to incentivize and train a significant number of alumni to be caring and mindful mentors. Hence, the establishment of this program might require significant resources, both monetary costs and human capital. In a 'lighter' and more practical version of such a program, Etgar could focus on connecting current and former students who would volunteer without providing significant guidance. In sum, this alternative offers a new mechanism to tap into students' worlds to engage them in learning, though it might require the establishment of costly infrastructure.

Enhance Incorporation of Project and Arts-Based Learning

A third alternative increases emphasis on project- and arts-based learning, allowing teachers and schools to leverage flexible components of the curriculum to incorporate engaging pedagogies that suit Etgar students. Research suggests that project-based learning (PBL) can increase academic performance in core subjects (Boaler, 1998) while increasing vulnerable youth's standardized test gains, motivation, and critical thinking skills (Holmes & Hwang, 2016; Geier et al., 2008). Arts-enhanced curriculum acts as a "hook to engage students in learning content," creating engaging, authentic learning experiences that connect academic learning to the real world (The Kennedy Center, n.d.). Diverse modes of learning could increase students' engagement in subjects like math, English, literature, and civics.

We suggest including the "Meaningful Learning" 2014 reform as a focus of the Etgar program. By providing Etgar teachers designated tools and accountability measures to include project-

and arts-based learning, the S.H.R. division could encourage schools to dedicate the 30% portion of students' final grade in matriculation tests to an art portfolio or project created by the student. Since schools have autonomy over 30% of students' matriculation grades, we suggest creating programmatic guidelines, exemplars, and designated PD guiding teachers on how to adjust these pedagogies to the needs of students so schools and teachers could easily incorporate them in Etgar classrooms. We also suggest the development of assessment guidelines to support equitable evaluation.

Although the curriculum and school-based pedagogies are outside the division's authority, thus undermining its administrative feasibility to ensure equal and quality implementation by schools, the division could measure and monitor whether and to what extent Etgar teachers implement these pedagogies in practice. The division would need to utilize its "soft" authority as experts on teaching vulnerable youth to convince schools it is in their interest to incorporate innovative and engaging pedagogies to increase matriculation eligibility, since schools receive Etgar funding according to the percentage of student eligibility for the matriculation certificate. We do not have data to assess this alternative's potential cost, though we assume that creating programmatic guidelines are not resource-intensive (Interview E). This alternative is practical in schools already successfully implementing the "Meaningful Learning" reform, but less so in schools that are behind as it would require significant changes in classroom instruction and teacher training. In sum, this alternative could leverage flexible components of the strict matriculation system and incorporate innovative and engaging teaching practices, but it would be institutionally complicated to ensure effective and equal implementation at the school level.

Considering the Tradeoffs

To identify which alternative best suits the program's needs and objectives, we now analyze the tradeoffs. The potential of teacher and alumni mentorship to directly influence students' ability to connect current learning to future wellbeing is

presumably the highest among our three alternatives. Though incorporating project- and arts-based pedagogies could introduce powerful learning experiences, the fact that the S.H.R. division cannot require or monitor its implementation decreases its effectiveness at scale. Teacher mentorship would cost the least, as it builds on existing mentoring mechanisms and only requires an adjustment of teacher training, whereas establishing new infrastructures to support alumni mentorship programs and pedagogical innovations could require more resources. Similarly, while all alternatives are administratively feasible, teacher mentoring would fit best with current working schemes of the S.H.R. division. Admittedly, an alumni mentorship program and innovative pedagogies could introduce fresh, impactful mechanisms that could seize a historic opportunity to innovate during the transformative period of the pandemic. With all of this considered, we conclude the most promising recommendation is implementing future-oriented teacher mentorship through designated training and monitored implementation through the dynamic-holistic tool as a solution that could be implemented successfully and equitably.

4.5.3.2 Building Professional Teacher Capacity

Based on research and the UNESCO report, we suggest it is essential to close the divide between homeroom and professional teachers to ensure Etgar students receive consistent, specialized care and support from all adults at school. Closing this gap would create greater coherence with the program's theory of action, highlighting the assumption that well-trained teachers are key for therapeutic pedagogy to work. The S.H.R. division is only funded to support 2,000+ homeroom teachers, so the capacity to train tens of thousands of professional teachers is unrealistic. Furthermore, the division does not have the authority to require professional teachers to attend its PD, making it difficult to monitor their training. Therefore, we offer three alternatives that would build on homeroom teachers as a source of training. Our policy outcome is to provide on-the-job training mechanisms for professional teachers.

Mentorship Program between Homeroom and Professional Teachers

The first alternative is to create guidelines for a mentorship program to enhance collaboration and knowledge exchange between homeroom and professional teachers. The S.H.R. division can encourage schools to opt-in to a peer mentorship program. Such a program could establish school-wide peer observation opportunities led by homeroom teachers, thus leveraging existing strengths within the teaching team while mitigating the problem of insufficient resources to train professional teachers. Creating a culture of thoughtful peer observation, coupled with dedicated co-reflection and collaboration time, would foster a safe environment and knowledge transmission among teachers working with the same students. This alternative relies on school leaders' facilitation skills and ability to support these programs as well as teachers' openness to such feedback processes. Hence, although we estimate this alternative would not require significant resources, practical challenges may include the requirement of detailed development and implementation that is outside of S.H.R. division monitoring capacity and competing time and resource priorities of schools and teachers, especially for busy Etgar teachers who already work around the clock. In sum, this alternative enables on-the-job training to increase professional teacher capacity to more effectively support Etgar students but relies on the buy-in of thousands of stakeholders over whom the S.H.R. division has no direct authority.

Including Professional Teachers in Mapping Students' Progress

A second alternative is to enhance collaboration between homeroom and professional teachers through the dynamic-holistic mapping process. Currently, only homeroom teachers are required to fill out the mapping tool for each student four times a year. By involving professional teachers in this process, they would have a voice in individualizing student support plans and would routinely engage in collaborative dialogue around the assets, challenges, and needs of each student. Such collaboration could effectively expose professional teachers to homeroom teachers' accumulated knowledge, specialized techniques, and

overall compassion for Etgar students, without additional costs. Since this alternative relies heavily on human relationships as well as teacher buy-in, practical issues could arise, requiring coordination between teachers and prioritization of school leaders. In terms of administrative feasibility, the S.H.R. division could develop tools to monitor professional teachers' participation in the mapping process but would be limited in assessing its impact on professional teachers' capacity-building. In sum, although practical and cooperative challenges may emerge, this low-cost alternative allows deep and intimate collaboration between homeroom and professional teachers while enhancing the latter's access to therapeutic pedagogy.

Surveying Teachers About the Challenges Faced by Professional Teachers

The last alternative is to conduct a gap analysis between professional and homeroom teachers by surveying both groups about professional teachers' needs and their reasons for not participating in S.H.R.-led PD opportunities. One of the policy-level innovations employed during the pandemic was to regularly conduct national surveys among teachers to understand their challenges transitioning to remote learning (Interview A). We suggest expanding this mechanism in order to surface educators' needs, utilize existing knowledge to address the gap between homeroom and professional teachers, strengthen inter-institutional collaborations, and inform national data-driven policymaking through available digital tools (UNESCO, 2021). While such research would be most effective through surveying all homeroom and professional teachers, the S.H.R. division's administrative feasibility might justify either a focus on surveying solely homeroom teachers or, considering the number and diversity of professional teachers, a voluntary random sample of professional teachers to include their voice (Interview E). The cost of this alternative depends on the scope of the survey and data analysis, yet it could fit into established survey capacities, and catalyze change by merely instigating reflection among stakeholders and surfacing potential areas of greater collaboration between homeroom and professional teachers. Another significant benefit of this alternative is its high practicality, as it does not require extensive resources or rely on

coordination of thousands of school leaders and teachers, nor does it involve major changes in current structures of the program, of schools, or of training.

Considering the Tradeoffs

To identify which alternative best suits the program's needs and objectives, we now analyze the tradeoffs. In terms of effectiveness, we have evidence that the survey alternative would enable the S.H.R. division to effectively collect and interpret data to inform decision-making as was done during the pandemic. We also expect that including professional teachers in the mapping process would create space for enriching dialogue between homeroom and professional teachers. Although the mentorship program could push schools to introduce a new and powerful mechanism of collaboration, there is more risk to its implementation given susceptibility to multifaceted contextual, relational, and personal factors. Coupled with low administrative feasibility of the S.H.R. Division to monitor quality implementation and questionable practicality in schools' current operating structures, we consider the mentorship program to offer less potential in this context. Between surveying teachers and including professional teachers in the mapping process, administrative feasibility and practicality gravitate our analysis towards the former, as it builds on the division's existing momentum of expanding evidence-based policymaking. As we suspect that inclusion of professional teachers in the mapping process and introducing mentorship programs might be inspiring in theory but beyond the division's capacity to ensure quality implementation in practice, we conclude that surveying teachers is our recommended alternative. It would provide the S.H.R. Division the tools to assess and engage other key stakeholders around capacity-building for professional teachers. Given previous action spurred from data collection efforts, such as the Rama study (2019) and periodic data collection that the S.H.R. Division has used to make programmatic decisions (Interview C), we anticipate that the findings from the suggested survey would inform actions to mitigate the gap in preparation of all adults working closely with Etgar students.

4.6 Conclusion

This chapter has examined several policy alternatives that the Israeli MoE's S.H.R. division can consider implementing to enhance the Etgar program's positive outcomes for the youth they serve and move Etgar into closer alignment with the principles outlined in UNESCO's *Reimagining Our Futures Together* report. While the program's emphasis on Etgar homeroom teacher professionalization and safeguarding schools aligns with the report's vision for transformative education, there are opportunities to implement authentic, future-oriented pedagogies and build professional teacher capacity in order to strengthen the program's impact. After considering tradeoffs and evaluating actionable alternatives, the most feasible and effective policy recommendations identified in each of these areas of opportunity, respectively, are (1) future-oriented teacher mentoring, and (2) surveying teachers on the challenges, gaps in knowledge, and tools of professional teachers teaching Etgar students. As the report envisions, these recommendations would advance the program's ability to provide inclusive, equitable, and transformative educational opportunities for all students.

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Appendix

Interview list

All interviewees serve under the Israeli MoE

A - National Officer in Charge on S.H.R Curricular Programs, Oct. 11, 2021

B - National Officer in Charge on S.H.R Curricular Programs, Oct. 16, 2021

C - National Academic Consultant for S.H.R Programs, Oct. 19, 2021

D - National Director for MBR Etgar Programs, Oct. 22, 2021

E - Organizational Consultant, S.H.R Division, Oct. 24, 2021

F - Deputy of Northern District Officer, S.H.R Programs, Nov. 14, 2021

G - Etgar Homeroom Teacher and S.H.R. coordinator, Dec. 2, 2021

H - Middle School S.H.R. Professional Teacher, Dec. 8, 2021

I - Etgar Professional Teacher (former), Nov. 16, 2021

J - S.H.R Instructor in Northern district, Nov. 8, 2021

Author Biographies

Tom Nachtigal is an Ed.M. candidate at the Harvard Graduate School of Education in Human Development and Education. She holds an LL.M. from Columbia Law School and an LL.B./B.A. in law and international relations from the Hebrew University of Jerusalem. Trained as a lawyer, before coming to Harvard she served as a legal advisor in the Israeli government, practicing international law and human rights. Currently, she works as a research assistant at the Democratic Knowledge Project and at the EASEL Lab at Harvard. Contact: tomnachtigal@gse.harvard.edu

Lindsey Pockl is an Ed.M. candidate at the Harvard Graduate School of Education specializing in Education Leadership, Organizations, and Entrepreneurship. She holds both a B.S. and M.Ed. in Elementary Education from the University of Minnesota-Twin Cities. Prior to Harvard, she taught elementary school in the USA and Brazil, and currently creates climate change content for a non-profit.

Abigail S. Reed is an Ed.M. candidate at the Harvard Graduate School of Education specializing in Learning Design, Innovation, and Technology and Global, International, and Comparative Education. She holds degrees in literature from Middlebury College and the University of Cambridge. Prior to Harvard, she taught high school English and served as department head in schools in the USA, Singapore, and South Africa.

Shambhavi Singh is an Ed.M. candidate at the Harvard Graduate School of Education specializing in Education Policy and Analysis. She holds degrees in Literature and Human Resource Management from Delhi University and Durham University. Prior to Harvard, she focused on countries of Eastern and Southern Africa to expand entrepreneurship programming. Currently, she is the online editor for Africa Policy Journal at Harvard Kennedy School and serves as a board member for Pan Asian Coalition for Education.

Chapter Five. Kenya

Responding to COVID-19: Strengthening the Delivery of Gender-Responsive Education in Kenya

Farhan Karim, Ishani Parekh, Cecelia Scheuer and Nathalia Trujillo

Abstract

The paper presents a policy recommendation designed to improve the delivery of gender-responsive education in Kenya. This analysis begins with an overview of the Aga Khan Foundation's (AKF) Foundations for Learning (F4L) project and examines how the COVID-19 pandemic altered the landscape of girls' educational opportunity in Kenya. The literature review focuses on gender-responsive education, sexual and gender-based violence, the multifaceted impacts of school closures on girls as well as the impacts of COVID-19. The chapter presents a series of policy alternatives before presenting an integrated approach to strengthening the delivery of gender-responsive education. For the Aga Khan Foundation, strengthening the delivery of gender-responsive education requires an integrated and systematic approach that builds on its existing institutional capabilities and strengths. The final policy recommendation is one of professional development for teachers and the provision of digital learning opportunities, along with the provision of gender-responsive and trauma-informed counselor training.

5.1 Introduction

Responding to the challenge of COVID-19 is not one separate from the themes discussed by UNESCO's recent report

Reimagining Our Futures Together: A New Social Contract for Education (UNESCO 2021). The challenge of uncertainty remains core to both building back after the pandemic and reimagining the future of education. The challenges of uncertainty and unpredictability highlight the fragility of the human condition demanding both global cooperation, and a shared commitment to common principles. As the UNESCO report describes, “respect for human rights and concern for education as a common good must become the central threads that stitch together our shared world and interconnected future” (UNESCO 2021). The challenge of gender equality speaks to both these principles and is made more acute by the inequalities highlighted and exacerbated by COVID-19.

This paper discusses the Aga Khan Foundation’s challenge of providing quality gender-responsive education in Kenya. The paper 1) introduces the Aga Khan Development Network (AKDN) and the AKF’s and Foundations for Learning program (F4L); 2) outlines the challenge confronting AKF; 3) includes a literature review outlining gender-responsive education, and impact of school closures on girls, with focus on the issues of the digital gender divide, girls re-enrollment and gender-responsive teaching; 4) an discussion of policy alternatives and criteria; 5) an analysis of policy tradeoffs; and 6) a final policy recommendation.

5.1.1 The Aga Khan Development Network (AKDN)

The AKDN is a network of private international development agencies founded and chaired by His Highness the Aga Khan. The AKDN operates in over 30 countries, employing 96,000 people and its annual budget for non-profit development is US \$1 billion. (AKDN, 2020). Each of the AKDN’s agencies have individual mandates and operate in the fields of healthcare, development, architecture, cultural development, finance, and primary to tertiary education. The network’s agencies are united in their pursuit to improve the quality of life of the poor and marginalized (AKDN, 2020).

5.1.2 The Aga Khan Foundation (AKF) and Foundations for Learning (F4L)

The Aga Khan Foundation (AKF) is an AKDN agency responsible for securing funding and coordinating projects in the field (AKDN, 2020). This policy paper addresses AKF's Foundations for Learning (F4L) program, one of three distinct but interrelated components of a larger project entitled Foundations for Education and Empowerment (F4EE). F4EE is a five-year (2020-2025), CAD \$57.6 million project funded by Global Affairs Canada (GAC) (CAD \$49 million) and Aga Khan Foundation Canada (CAD \$8.6 million), which aims to enhance equitable development and empowerment for girls and women in select areas of Africa (AKF, 2021). F4EE's target countries include Kenya, Madagascar, Mozambique, Tanzania, and Uganda. The entire F4EE project aims to reach a total of 1,658,452 primary students, 54% of which are in Kenya (464,683 male, 446,461 female) (AKFC, 2021). AKF is responsible for the coordination of the F4EE project in East Africa, which will be implemented in partnership with AKF's other initiatives including the Madrasa Early Childhood Programme (MECP) and the AKDN's other educational agencies in Kenya, including the Aga Khan Education Services (AKES), the Aga Khan Academies (AKA), and Aga Khan University's Institute for Educational Development (AKU-IED).

F4L aims to “address the urgent need for advancing gender equality and pluralism in and through education across East Africa by aligning efforts to accelerate improved learning, not simply more schooling” (AKFC, 2021). The program's goal is to strengthen the delivery of quality gender-responsive and inclusive pre-primary and primary education. Given the international scope of AKF's F4L's programming, this analysis is restricted to Kenya's primary education system, and specifically its efforts in the coastal counties of Mombasa, Lamu, Kilifi, and Kwale (AKF, 2021).

5.1.3 COVID-19 and the Challenge facing Aga Khan Foundation (AKF)

The challenge AKF faces is programmatic adaptation in a changed context and uncertain future. The impact of the COVID-19 pandemic has varied across the world, having “served as an accelerant for some pre-existing difficulties [poverty, inequality, social inclusion, governance],” (Reimers et al., 2021). It is also a challenge of uncertainty. The original F4L program developed before the pandemic aimed to strengthen the delivery of gender-responsive education in Kenya. The pandemic has since altered the context of Kenyan society and has both exacerbated and created new challenges for the education of primary school girls in Kenya. AKF responded with a series of COVID-19 emergency interventions which sought to mitigate the immediate impact of COVID-19 on primary educational opportunity. Interviews with AKF staff confirmed that Global Affairs Canada (GAC), AKF’s funding partner, requested that AKF continue working towards its original objective of enhancing the delivery of gender-responsive education. The challenge now facing AKF is one of implementing programs that will strengthen gender-responsive education in light of COVID-19’s impact.

5.1.4 Impact of COVID-19 on Educational Opportunity in Kenya

Employing Reimers' (2021) COVID-19 Context Framework, the impact of the pandemic on primary education opportunities in Kenya can be categorized across five key areas: student well-being and readiness, student access and engagement, teacher wellbeing, communities and poverty, and operation of the education system. A survey of literature revealed that that these included: 1) declining mental health; 2) deteriorating family relationships; 3) disparate access to technology; 4) a lack of teacher preparation for online teaching; 5) an increased burden placed on parents to support learning; 6) learning loss from school closures; and 7) a lack of professional development support for teachers (UNICEF 2021; Barasa, 2021; Shumba et al., 2020; Ileri 2021; Mbogo 2020; Angrist et al., 2021).

5.2 Literature Review

The impact of COVID-19 on girls in Kenya has both exacerbated existing inequalities while providing the opportunity to rethink gender-responsive education in a new world. The literature review draws from the UN (UNICEF 2020) taxonomy for assessing the impact of COVID-19 on education through a gender-responsive lens and provides an overview of: 1) gender-responsive education; 2) the disproportionate impact of school closures on girls; 3) learning continuity and the digital gender divide 4) re-enrollment; and 5) investing in gender-responsive teaching.

5.2.1 Gender-Responsive Education

Gender-responsive education refers to educational pedagogies, programming, curricula, and interventions which consider gender norms, roles, and relations in service of "actively reducing the harmful effects of gender norms, roles, and relations--including gender inequality" (USAID, 2018). Gender-responsive education aims to advance gender equality by dismantling entrenched gender norms which both limits women's and girls' contributions to society and excludes them from active participation in the public sphere (UNICEF, 2020). This requires shifting the cultures, policies, and practices that discriminate against girls by developing education systems that empower all learners while instilling in them the attitudes and competencies needed to challenge gender inequality in their communities and beyond (INEE, 2019). Gender-responsive education entails a pedagogical and curricular approach to education which "addresses gender-based barriers; respects gender differences; enables structures, systems, and methodologies to be sensitive to gender; ensures gender parity is a wider strategy to advance gender equality; and evolves to close gaps and eradicate gender-based discrimination" (IANEE, 2019). Delivering effective gender-responsive education requires acknowledging differences in students' social realities, needs, and competencies based on gender and other intersecting identities such as age, ethnicity, language, disability, displacement, and sexuality (INEE, 2019). According to a

UNICEF sample of 75 countries, approximately 91% of men and 86% of women hold at least one bias against gender equality in the areas of politics, the economy, education, violence, and women's reproductive rights (2020). Dismantling these biases necessitates the active participation of women, men, girls, and boys in gender-responsive education models. The inclusion of boys in gender-responsive education is essential in the recognition of male privilege and ensuring that boys and men play an active role in challenging discriminatory practices or beliefs (INEE, 2019).

5.2.2 The Disproportionate Impact of School Closure on Girls

Past global health crises reveal the vulnerability of girls during prolonged school closures (UNESCO, 2020). The disproportionate impact of school closures on girls is evident in three emergent themes: 1) a rise in sexual and gender-based violence; 2) an adverse impact on girls' economic security and livelihood; and 3) adverse impacts on mental health and well-being (Singh & Patel, 2020).

5.2.2.1 Sexual and Gender-Based Violence

Recent modeling from the United Nations Population Fund (UNFPA) predicts that COVID-19 will slow the progress in ending sexual and gender-based violence by 2030, with 31 million sexual and gender-based violence cases expected due to 6-month lockdowns. The closing of public physical spaces led to an increase of reported sexual and gender-based violence cases in Kenya, with 49% of emotional and physical abuse committed in male-headed households by family members or close friends (United Nations, 2021). The number of sexual and gender-based violence cases may be higher than reported, as cultural norms in Kenya regarding notions of honor and a lack of police training in dealing with sexual assault cases contribute to the underreporting of cases (M. Mwingi, personal communication, December 2, 2021). The increase in sexual and gender-based violence cases is reflective of a general rise in

sexual and gender-based violence during global health crises. During the Ebola crisis, girls and women in affected countries experienced a 65% increase in gender-based violence, early and forced marriages, and transactional sex (UNICEF, 2020). A report by Global Citizen found that over the three-month lockdown period, 152,000 Kenyan teenage girls became pregnant, indicating a 40% increase in the country's average teen pregnancy rate (United Nations, 2021). Teen pregnancies increased by 13% in Kisumu, 3% in Nairobi, and 3% in Kilifi (Population Council, 2021). The country's focus on COVID-19 response efforts also diverted resources from routine services such as sexual and reproductive health and the clinical management of gender-based violence (Global Citizen 2020).

5.2.2.2 Economic and Livelihood Impacts

The pandemic also triggered an unemployment crisis in Kenya, exacerbating the burden of unpaid care work on women and girls, largely responsible for caring for other family members (UN, 2021). Notably, 76% of Kenyan girls reported an increase in household chores compared to 46% of boys (Global Partnership, 2021). Economic constraints also inflated the rate of child marriages. A study by the Presidential Policy and Strategy Unit (2021) found that three out of ten girls reported getting married during the pandemic due to financial reasons, and that those who did marry eventually dropped out of school. As economic pressures intensified transactional sexual relationships also rose by 27.5%, contributing to the rise in teenage pregnancies (Performance Monitoring for Action, 2020).

5.2.2.3 Mental Health and Well-Being

These impacts have also had significant consequences on students' mental health and well-being. A study conducted in Kenya's rural and urban areas showed that 46% of students in Nairobi and 34% of students in Kilifi experienced symptoms of depression, with many children citing parent relationships and familial circumstances as a cause of anxiety (Shumba et al.,

2020). This impact is most pronounced among girls (Presidential Policy and Strategy Unit & Population Council, 2021). Support mechanisms and whole school approaches are needed to ensure schools are safe and supportive, with strong policies to prevent and respond to psychological and physical harm (UNESCO, 2020). Despite the Kenyan government's increased commitment to implementing guidance and counseling programming in primary schools, a lack of standardized training curriculums, ethical standards, and counseling models persists (Wambu & Wickman, 2016). Counseling programs are typically run by teachers designated as counselors with little to no training. An interview with Dr. Mweru Mwingi, an expert on Gender in Education at the Aga Khan University, revealed that counselors are ill equipped to support girls in navigating the challenges they face in and outside of school (2021).

5.2.3 Learning Continuity and Digital Gender Divide

The shift from in-person to digital and online learning during the COVID-19 pandemic raised concerns that “existing gender inequalities in the use of digital resources and IT will therefore affect access to education for girls vis-à-vis boys over that period” (Indira, 2021). Distance learning materials during the COVID-19 pandemic were primarily delivered via platforms such as WhatsApp, YouTube, and the Kenya Education Cloud (Ministry of Education, 2020). However, due to gender biases informing access to technology among poor families, Kenyan girls and women lack the same levels of access to technology as boys and men (Indira, 2021). Interviews with AKF staff affirmed that the majority of cellphone and electronic device holders within Kenyan households are men (R. Corbishley, personal communication, October 19, 2021). Across low and middle-income countries, women are still 8% less likely than men to own a mobile phone and 20% less likely to use the Internet on a mobile phone, which could limit their capacity to keep up with home-schooling materials (Kimosop et al., 2015).

5.2.4 Re-Enrollment

The COVID-19 pandemic has disproportionately affected school enrollment rates for girls in Kenya. The Malala fund estimated that 20 million girls were at risk of not returning when schools reopened (UNICEF, 2020). A pervasive barrier facing girls returning to school is the inability to pay school fees (UNESCO, 2021). Interviews with Aga Khan University staff revealed that the pandemic heightened economic pressures for girls to engage in work and remain out of school (M. Mwingi, personal communication, December 2, 2021). As these girls developed a sense of economic autonomy, some may have felt less inclined to return to school. This risk was apparent in Mombasa, where the tourism sector presents opportunities for illegal and legal work (M. Mwingi, personal communication, December 2, 2021). Cultural influences also inhibit girls' opportunities for continued learning (UNICEF, 2016). For example, child marriage is a strong predictor of drop-out. Girls are often forced out of school after marriage due to family expectations or discriminatory practices on the part of schools (UNICEF, 2020). Rural children in Kenya "face additional cultural and livelihood challenges [caring for family and livestock] that negatively influence their education and contribute to their higher failure and dropout rates" (Kimosop et al., 2015).

5.2.5 Investing in Gender-Responsive Teaching

Pedagogy in sub-Saharan Africa is often gender-blind, producing harmful effects for both girls and boys that resonate beyond education (UNGEI, 2021). Teachers and staff often lack sufficient or appropriate training, resources, and support needed to positively transform gender norms in school settings (UNGEI, 2021). The COVID-19 pandemic exposed the need for investment in gender-responsive teaching. Teachers' roles evolved during the pandemic to facilitate quality distance learning and provide support to learners in high-stress environments. However, teachers assumed these responsibilities with little professional support, resources, and training, often in contexts where they must also support their own children's

learning from home (UNESCO, 2020). A global report on gender and education by the United Nations Girls Education Initiative (UNGEI) (2020) stated that self-paced learning and flexible scheduling helps mitigate the challenges of school closures while ensuring learning continuity for the most marginalized girls. These strategies must also address the digital gender divide and explore alternative methods for girls to access learning materials. Given the critical role that teachers play in supporting learning, additional support should be provided for continuous professional development, particularly around digital pedagogy (UNGEI, 2020). UNESCO (2020) also suggests prioritizing teacher well-being, as well as payment and female teacher recruitment and retention in remote and rural areas.

5.3 Policy Alternatives

A literature review on gender-responsive education points to several policy alternatives for AKF in achieving F4L's goal of strengthening the delivery of quality, gender-responsive, and inclusive primary education in Kenya.

5.3.1 Policy Option #1: No Adaptations to Original F4L Programming

5.3.1.1 Overview & Projected Outcomes

The diversion of F4L funds towards a COVID-19 response in March 2020 delayed the implementation of F4L's original programming. In an update provided by AKF at the time of writing, this program is running with slight modifications in light of new government directives. The original F4L program requires the implementation of four key interventions, which were based on an assessment of girls' needs before the pandemic. The first intervention would consist of working with the Kenyan Institute of Curriculum Development (KICD) to implement Values-Based Education modules (AKF, 2021). These modules would enable teachers and school leaders to operationalize the "Values Pillar" of the national Competency Based Curriculum, which seeks to instill students with 21st

century competencies in addition to formal academic competencies (KICD, 2017). The second intervention would be to roll out AKF's Gender-Responsive Play-Based Teacher Professional Development module, financially supported by the Lego Foundation (AKF, 2021). This module would provide teachers with the knowledge and skills necessary to apply low-cost, contextually relevant, student-centered, and gender-responsive pedagogical approaches in their classrooms. The third intervention would be to deliver an Inclusive Classroom Learning Environment Guide to promote effective teacher support strategies and inclusive pedagogical practices (AKF, 2021). In terms of the cost of this intervention, we assume that AKF would draw from its remaining CAD \$40 million F4EE budget. Collectively, these interventions could strengthen the delivery of gender-responsive education by integrating gender-responsive pedagogical approaches into the existing curriculum, while preparing teachers to identify and respond to gender disparities in enrollment, attendance, and achievement.

5.3.2 Policy Option #2: Gender-Responsive and Trauma-Informed Training for Counselors

5.3.2.1 Overview & Projected Outcomes

The increase in sexual and gender-based violence and related trauma experienced by girls and boys during the pandemic (Shumba et al., 2020) calls for school counselors to be trained in both gender-responsive and trauma-informed approaches to psychosocial support. This second policy option would consist of:

- a) Providing designated teacher counselors with trauma-informed training on the gendered impacts of the pandemic across the domains of sexual and gender-based violence, increased child marriage and teen pregnancy, deteriorating mental health, declining enrollment, and a decreased ability to succeed academically (UNICEF, 2020).

- b) Training counselors to identify points of referral within the wider community such as local NGOs, healthcare providers, counseling services, and local authorities.
- c) Training counselors on effective communication and collaboration techniques to aid teachers and parents in supporting vulnerable youth, including those who are at risk of not re-enrolling.

Training for counselors would be available at public universities such as Moi University and Egerton University and private universities like the University of Eastern Africa and the Catholic University of Eastern Africa, which offer both pre-service and in-service counselor training programs (Wambu & Wickman, 2016). Gender-responsive and trauma-informed counselor training would also prepare counselors to support teachers in identifying signs of stress, anxiety, anger, or risks to personal safety and well-being for vulnerable girls and boys (UNICEF, 2020).

5.3.2.2 Best Practices

Case studies on gender-responsive education training demonstrate that teachers are central to promoting a gender-inclusive classroom environment. In 2017, Plan International Canada developed a Gender-Responsive Pedagogy Teacher Training Pack. Piloted in Mozambique and South Sudan, the pack used a two-pronged approach which: 1) encouraged teachers to recognize their own gender biases; and 2) prepared them to respond using child-centered pedagogy to provide equal learning opportunities for children (Hamdani, 2020). Studies on trauma-informed counselor training indicate that effective training should prepare counselors to provide safe spaces for individual students to communicate their needs and navigate their unique circumstances (UNICEF, 2020). Gender-responsive and trauma-informed training should also prepare counselors to aid other teachers in providing group psychosocial support in their classrooms. Group psychosocial support can take the form of bystander intervention and solidarity workshops, during which students are presented with scenarios involving gender-based discrimination or violence (UNICEF,

2020). Discussing students' responses can promote a shared understanding on the manifestations of gender inequality and trauma and encourage students to think intentionally about caring for themselves and their communities. (UNICEF, 2020).

5.3.2.3 Estimated Cost

Given that Kenyan public schools are required by law to have at least one designated teacher-counselor each, we can assume that at least one teacher from each of AKF's 202 target primary schools would participate in such a training program. Conventional teacher training programs in Kenya typically cost an average of CAD \$68.73 to attend (Wambu & Wickman, 2016). Based on this amount, if only 202 teachers attended the training program, the estimated minimum cost of this policy option would be roughly CAD \$13,883.09 without accounting for program content and length, transportation, and additional costs.

5.3.3 Policy Option #3: An Integrated Approach to Blended Learning

5.3.3.1 Overview & Projected Outcomes

The digital divide pervasive in Kenya's most rural communities disproportionately prevented girls from accessing and engaging with digital learning materials during the pandemic (United Nations, 2021). Furthermore, teachers reported lacking the digital competencies and pedagogical training to deliver quality online learning (Ileri, 2021). This option recommends continuing with an adapted version of the professional development training that AKF provided to 348 teachers in Kenya as part of its COVID-19 response, which included training on distance teaching, accelerated learning, and providing psychosocial support (AKDN, 2021). This adapted teacher training program would contain three specific elements designed to respond to the digital gender divide:

- a) Developing teachers' digital competencies to facilitate remote learning for three distinct groups of students,

those out-of-school, those on the fence of re-enrolling, and those who are re-enrolled but not attending school consistently.

- b) Preparing teachers to maintain blended learning approaches by incorporating online or broadcast-based learning in the classroom to develop students' digital competencies.
- c) Preparing teachers to deliver blended learning approaches for girls and boys who cannot return to school consistently and support those students in engaging with digital material.

The adapted training program would be supplemented with an electronic device rollout to out-of-school and at-risk youth to ensure that vulnerable students are able to both access and engage with digital learning material. This intervention would specifically target girls and economically disadvantaged students who dropped out of school, are attending school intermittently, as well as those who lack consistent access to the internet or electronic devices (Population Council, 2021). A comparison of the percentage of Kenyan girls expected to fully re-enroll in school (84%) with the percentage of boys expected to fully re-enroll (92%) (Taulo and Robles, 2021), allows for an estimation of device numbers. According to AKDN's COVID-19 Response Report, AKF's COVID-19 interventions reached a total of 24,920 students (AKDN, 2021). Assuming that this sample is representative of the 16% of Kenyan girls and 8% of Kenyan boys who are expected to remain partially or completely out-of-school, an estimated 5,981 devices will need to be distributed. It is also possible that a school may have more or less than 40 students in need of a device. In any case, AKF should designate point staff to identify vulnerable youth and assess their learning needs and recruit volunteers to ensure that these devices can be redistributed across schools and delivered to students' households.

5.3.3.2 Best Practices

The delivery of online learning material through multimedia platforms such as WhatsApp, YouTube, and the Kenya Education Cloud (Ministry of Education, 2020), requires assessment of device compatibility. AKF can effectively support a tablet device roll-out by partnering with companies such as BRCK, an education technology provider based in Nairobi. To tackle the digital divide, BRCK developed an innovative solution titled the Kio Kit (BRCK, 2016). The kit provides 40 tablets per school that can be charged wirelessly, with each tablet containing a Wi-Fi hotspot and a small server packed with educational content (BRCK, 2016). The Kio Kit is also connected to the Kenya Education Cloud, which allows its server to update automatically. The kit's self-updating capabilities ensure that students and teachers utilizing its platform have access to a diverse set of learning activities that are designed to be flexible, self-paced, and catered to their unique learning needs (BRCK, 2016).

5.3.3.3 Estimated Cost

Assuming the 3,474 Kenyan primary school teachers in AKF's target geographies (AKF, 2021) attend this adapted teacher training program at a cost of CAD \$68.73 per teacher, the minimum cost is approximately CAD \$240,555 excluding program length, content, transportation, or additional costs. Given that AKF's educational programming targets 202 primary schools in Kenya (AKDN, 2021), and assuming each school receives a Kio Kit of 40 tablets, the total of 8,080 tablets satisfies a demand of 5,981 students in the AKF target population who are not expected to fully re-enroll in schools. Each KioKit costs CAD \$6,453, resulting in a total cost of CAD \$1,303,107 for AKF's 202 target schools.

5.3.4 Policy Option #4: Cash Transfers to the Families of Out-of-School Youth

5.3.4.1 Overview & Projected Outcomes

This option entails making cash transfers to households with out-of-school youth to mitigate the pandemic's heightened economic constraints on families (Population Council, 2021). The literature on conditional and unconditional cash transfer programs throughout Sub-Saharan Africa suggests that cash transfers increase school enrollment among the most disadvantaged students (UNICEF, 2015). According to UNICEF, cash transfer programs can encourage out-of-school youth to return to school by 1) allowing households to pay for school fees, textbooks, uniforms, supplies, and transportation; 2) alleviating the need for children to work; and 3) altering parents' outlook on the future and decision to invest in their children's schooling (2015).

This policy option would entail:

- a) Identifying specific households and basing the amount of cash transferred to each household on the respective number of out-of-school youth per household and the gender of those youth.
- b) Making unconditional digital cash-transfers to the identified households. AKF would apply a gender equity lens to a cash transfer program to ensure that transfers are equitable and meet the needs of the disproportionate number of girls who have remained out of school since the onset of the COVID-19 pandemic (UNICEF, 2020).

5.3.4.2 Best Practices

There is little evidence on how cash transfer programs specifically affect primary school re-enrollment rates for out-of-school youth. However, AKF can draw from the results of unconditional cash transfer programs across Sub-Saharan Africa, as the Foundation is unable to place conditions on the receipt of cash. The Kenya Cash Transfer for Orphans and

Vulnerable Children (CT-OVC), the government's flagship social protection program, has reached approximately 250,000 households nationwide as of 2015 (UNC Carolina Population Center, 2021). Eligible households with children up to 17 years old receive a flat monthly transfer via mobile phone of 2,000 Kenyan shillings (approximately CAD \$24) with no conditions attached to the transfer. This program increased school enrollment rates mostly among older children at the secondary level (Gordon & Rose, 2018). The government of Togo in Western Africa applied a gendered lens to cash transfers when it developed an unconditional digital cash transfer program. Women and men received an equivalent of \$20 and \$17 per month, respectively, to meet basic needs such as food, water, power, and communication services. The program allocated more money to women given that they are more likely to be informal workers by virtue of the unpaid care burden placed on them (IPA, 2021).

5.3.4.3 Estimated Cost

Using the Novissi model as a reference, this policy option would transfer an estimated total of CAD \$146,612 per month (CAD \$102,880 to girls and CAD \$43,723 to boys) to the households of our estimated 5,981 out-of-school youth in the target population (3,987 girls and 1,994 boys). This cost estimate does not account for additional costs associated with data collection, assessment, or monitoring and evaluation.

5.4 Policy Criteria

5.4.1 Feasibility

This criterion guides what can practically be achieved by the Aga Khan Foundation and its institutional partners in a particular time and context. The criterion of feasibility is especially pertinent as AKF does not exert the same level of control or influence as the national or county governments in Kenya's education system. However, the AKDN possesses 1) strong relationships with the Kenyan government at all levels; 2) a longstanding presence and name recognition in East Africa; 3) a

wide network of agencies in the region across the sectors of tertiary education, healthcare, and media; and 4) a strong network of partnerships with civil society organizations.

5.4.2 Scale

Any program or policy intervention must consider the scale at which AKF and the F4EE program operates. The beneficiaries of the F4EE program in Kenya include a total of 911,144 primary school students (446,461 female, 464,683 male), a total of 3,474 primary school teachers (2084 female, 1390 male), and 453 school and pedagogical leaders (221 female, 232 male) (AKFC, 2020). While not all participants will receive the proposed policy interventions, the intended reach provides a perspective of the scale at which the policy interventions must be designed. Given that the F4L program also operates across the countries of Tanzania, Uganda, Madagascar, and Mozambique, it is important to consider the extent to which policy recommendations could be scaled across the diverse realities of the East African context.

5.4.3 Cost-Effective

This requires that any intervention is effective relative to its cost. Interviews with AKF staff revealed an availability of CAD \$40 million (A. Cunningham, personal communication, September 15, 2021). Assuming an equal distribution between the five target countries of Kenya, Tanzania, Uganda, Mozambique, and Madagascar, this would leave CAD \$8 million for program interventions in each country. F4EE is also a project with three distinct components, including F4L. Assuming an equal distribution of funding across these three components, this would leave approximately CAD \$2 million for F4L program interventions.

5.4.4 Equity

Any program or proposed policy interventions must be considered through the lens of equity (Bardach, 2020). Given

that Global Affairs Canada GAC is AKF's primary funding partner, the principles outlined by the Government of Canada's Feminist International Assistance Policy (FIAP) serve as a useful set of guiding parameters as any intervention should be 1) human rights-based and inclusive; 2) strategic and focused; 3) transformative and activist; 4) evidence-based and accountable for achieving gender equality results (Government of Canada, 2020).

5.4.5 Institutional Alignment

The criterion of institutional alignment requires that interventions adhere with the ethical framework and development approach of AKDN and its institutions. To this end, any program intervention should align with the following principles: 1) a commitment to pluralism; 2) a commitment to a multi-input area development approach; 3) an ethic of partnership; 4) a commitment to the longevity of a development project; and 5) long-term sustainability (AKDN, 2020).

5.5 Policy Alternatives

Each of the policy options were evaluated along a matrix ranking each of the policy alternatives against the five criteria of feasibility, scale, cost-effectiveness, equity, and institutional alignment. The matrix used a scale of Low (1), Medium (2), and High (3) drawn from the work of Hinckley et al. (2021). An evaluation of each of the policy alternatives along each of these criteria resulted in the following scores, the original F4L programme received a total score of 11, the policy response of using gender-responsive and trauma informed training received a score of 14, the option of using an integrated approach to blended learning received a score of 12, and the policy option of using cash transfers to families for out of school youth received a score of 8.

5.6 Policy Trade-Offs

Policy one satisfactorily meets each of the selection criteria, yet the trade-off for this option is that its interventions are not designed to meet the changed context that the pandemic has created for girls' education. Proceeding with the original F4L program would mean that AKF sacrifices equity and the goal of strengthening the delivery of gender-responsive primary education in favor of a feasible policy alternative which has already been developed. Given that the primary challenge currently facing AKF concerns how to achieve this original goal in the face of a changed Kenyan educational context, policy one remains unsuitable.

Policy two meets each of the selection criteria to a greater extent than policy one. However, the former ignores the digital gender divide (UNICEF, 2020). Policy two also assumes that students will benefit by seeking counseling in schools. However, literature has revealed that the role of school counselors is unclear to the primary consumers of counseling services, including students, parents, and teachers (Wambu & Wickman 2016). The same study explains that the contemporary Western concept of a counselor is one that the wider Kenyan community is still working to embrace, as the notion of approaching a stranger to discuss personal issues remains uncommon. AKF would have to take additional steps to ensure that there is buy-in among relevant stakeholders if they select this option.

Policy three meets the criteria and mitigates the digital gender divide. However, the trade-off for is that it may be difficult to gather the data needed to identify vulnerable youth, to recruit enough personnel to deliver the devices to each household, and to ensure that devices are effectively used by girls and boys to support their learning. These steps present additional costs and capacity needs. An additional trade-off for this policy choice is one of beneficiary selection. An integrated approach to blended learning overwhelmingly targets girls and economically disadvantaged students who dropped out of school at the onset of the COVID-19 pandemic, who are attending school intermittently, and/or lack consistent access to the internet or electronic devices (Population Council, 2021). This means that AKF prioritizes access for out-of-school and vulnerable youth,

diverting efforts from providing gender-responsive psychosocial support for in-school youth which may improve longer term outcomes for girls (UNICEF, 2020). To address this trade-off, AKF could consider selecting an integrated alternative that combines policy options two and three.

Policy option four only partially meets the selection criteria and is the costliest of the four policy alternatives. Beyond cost and the negligible influence of cash transfers on student outcomes (Gordon & Rose, 2018), the primary trade-off to consider here is that cash transfers typically occur via mobile phones (The World Bank, 2020). Given that only 30% of Kenyans own smartphones and that 50% own basic phones with limited capabilities, it is likely that Kenya's most economically disadvantaged would not be able to access the cash transfers. In fact, selecting this option may only heighten the existing urban-rural economic divide instead of mitigating the impacts of the digital gender divide. Additionally, given that most mobile phone owners in Kenyan households are men, there is no way to ensure that the cash transfers would disproportionately reach or target out-of-school girls. Selecting this option would mean that AKF sacrifices equity, scale, cost-effectiveness, and institutional alignment in favor of a feasible option that does not necessarily target the most disadvantaged populations or incentivize them to return to school.

5.7 Final Recommendation

Based on the analysis of each policy alternative, this paper recommends implementing an integrated policy which combines policy options two and three to meet the challenges posed by COVID-19 to the delivery of quality, gender-responsive primary education in Kenya's coastal region. This integrated policy combines gender-responsive and trauma-informed training for counselors (policy option two) with an integrated approach to blended learning (policy option three) that consists of professional development on facilitating digital learning for both teachers and students, as well as an electronic device rollout to vulnerable families.

The integrated policy option is mutually reinforcing, as the combined interventions fill in the individual gaps of policy option two and three, while remaining within AKF's CAD \$40 million. The blended learning approach that policy option two presents, for example, does not address the mental health needs of vulnerable youth that may affect engagement with learning or the cultural norms which prevent girls from accessing and engaging with digital learning material. The gender-responsive and trauma-informed training that policy option three presents, however, does not address the digital gender divide which further impacts access to engagement with learning opportunities. Combining gender-responsive and trauma-informed counseling with the provision of digital learning opportunities and electronic devices addresses both these issues.

The AKDN has both strong institutional advantages and programmatic capabilities in place to make these policy pivots. AKDN's network of institutions in East Africa include the Aga Khan University's Institute for Educational Development (IED), which currently offers masters courses in Gender in Education, and Teaching Sensitive Issues (AKU, 2021). Recently, the Aga Khan Foundation partnered with UNICEF and Innovation Unit to announce a new EdTech Guide that would enable governments to strengthen digital learning (UNICEF, 2022). These could be adapted into short training programs or workshops for counselors. The Aga Khan Academy's professional development centers in Mombasa can also serve as a model and infrastructural support mechanism to enhance professional development on digital learning. AKF's F4L program, along with AKF's work with the Lego Foundation, has produced several multimedia materials, play-kits, and modules that have been designed for at-home learning. The adjustment necessary for an integrated policy approach, requires a slight content and pedagogical shift which combines play and values-based education with comprehensive gender-responsive education. From the lens of institutional capability, the electronic device rollout presents the largest challenge. However, AKDN's long history of civil society partnership, presence in the country, and strong relationships with the media

may support the strengthening of existing relationships with education technology and electronic device providers.

5.8 Conclusion

This analysis faced several limitations: 1) a lack of data on specific budgets for the remainder of the F4L program; 2) a lack of field experience in the Kenyan context; 3) difficulty in obtaining access to informants on the ground in impacted communities; and 4) the time constraints in developing an extensive policy recommendation that corresponds to the scale, depth, and complexity of the F4EE initiative. Ultimately, the COVID-19 pandemic transformed the primary education landscape in Kenya, exacerbating complex cultural and socioeconomic conditions to which AKF must respond in achieving its goal of strengthening the delivery of gender-responsive education. In addressing this challenge, AKF must consider how the pandemic has disproportionately affected access to, and engagement with, high quality education for Kenyan girls. Combining gender-responsive and trauma-informed counselor training with professional development on digital learning and the provision of digital learning opportunities via tablet rollouts can aid AKF in meeting the F4EE program's goal of enhancing equitable development and empowerment for girls in East Africa. The recommended policy response does not necessitate large-scale policy change, but rather small pivots that are both attuned to the shifts in the education ecosystem and can withstand an enduring environment of uncertainty.

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Chapter Six. Guanajuato, Mexico

Accelerating Learning for All: A Policy Analysis

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Abstract

While inequality has been a long-existing challenge in education, the COVID-19 pandemic exacerbated the effects of unequal access to education across the state of Guanajuato. In response to this, the Secretary of Education in Guanajuato created a 10-point document called a *Decálogo*, which sets the goals of quality and inclusive education for all its students and outlines the steps to be taken to remedy the gap in access to excellence in learning. Through a careful comparative analysis of literature, qualitative interviews, and quantitative data, this chapter details the process undertaken by the authors to support Guanajuato in accomplishing their most urgent priorities. Additionally, this chapter makes a proposal to bring the overall system in line with specific goals for education that are described in the 2021 *Reimagining Our Futures Together* report commissioned by UNESCO. Based on this collaborative research, the authors recommend an Accelerated Learning Program, which builds on and maximizes an already existing state-wide initiative employed during the pandemic.

6.1 Introduction

This paper will review the education system in the state of Guanajuato, Mexico, with the purpose of making recommendations to advance the quality of education. It will do so by bringing the overall system and future goals into further alignment with UNESCO's 2021 report *Reimagining Our Futures Together: A New Social Contract for Education* (UNESCO, 2021),

which outlines the ideals for building a strong future of education.

The analysis is based on a literature review, interviews with key stakeholders in the Guanajuato education sector, and data provided by the Secretary of Education of Guanajuato's (SEG) leadership. It will be structured as follows: first the authors will provide context and a brief overview of the unavoidable impacts that resulted from the COVID-19 pandemic. The following section will give an overview of the critical pillars of the UNESCO report and draw connections between current Guanajuato processes. This section will also review areas of opportunity to continue to address the needs of students and bring the system into closer alignment with the UNESCO report and improve the overall quality and inclusiveness of education in the State. A Theory of Action will be identified based on this current state analysis. Similarly, areas of opportunity will be outlined and guided by the proposals of the UNESCO report. Once these opportunities have been identified, three potential policy alternatives will be proposed. Ultimately, based on a set of four selection criteria, the recommendation is for Guanajuato to implement an Accelerated Learning Program. With this strategy, Guanajuato will be able to address the existing challenges within its educational system and provide quality and equitable education to all its students.

6.2 Context

6.2.1 General Demographics

Guanajuato is the 6th most populated state in Mexico (INEGI, 2020) and consists of a highly diverse urban and rural population with 46 municipalities (INEGI n.d.). Four mostly urban municipalities concentrate 41.7% of Guanajuato's population and form what is called the "industrial corridor" (SEG, 2021). Guanajuato's education system serves approximately 1,670,000 students from preschool to post-secondary education (SEG, 2021a). The system is comprised of 10,767 schools and 76,856 teachers (SEG, 2021a), and is divided into three categories: *Educación Básica*, *Educación Media* (high school), and *Educación Superior* (higher education). *Educación Básica* consists of *Educación*

Preescolar (preschool), *Educación Primaria* (primary school), and *Educación Secundaria* (middle school) (SEG, 2021a). Of these, only *Educación Básica* and *Educación Media* are considered mandatory by law (SEG, 2021).

6.2.1.1 Enrollment

School enrollment poses a challenge in Guanajuato, particularly in preschool and high school. The data shows that enrollment in preschool decreased 4.7 percentage points from the 2019-2020 (71.3%) to the 2020-2021 (67.3%) academic year (SEG, 2021). Similarly, high school enrollment decreased from 74.4% to 69.3% in the same period (SEG, 2021), which illustrates the enrollment challenge in both preschool and high school.

6.2.1.2 Desertion Rates

Desertion is a challenge for many education systems, and the SEG has implemented projects to support students identified as being at risk of abandoning school. The desertion rate in high school is 14.1% and poses a significant challenge to Guanajuato's education system (SEG, 2021d). Official data is corroborated with the interviews conducted with principals and leadership from the SEG, who confirmed that desertion was a challenge to Guanajuato's schools and was aggravated by the pandemic school closures (Interviewee #1, personal communication, November 3, 2021; Interviewee #3, November 8, 2021; L. Ortega, personal communication, October 13, 2021). Principals from rural areas highlight desertion as a key challenge compared to those from urban areas. (Interviewee #1, personal communication, November 3, 2021; Interviewee #3, November 8, 2021; L. Ortega, personal communication, October 13, 2021).

The interviews revealed that one of the causes of desertion could be related to families' socio-economic status (SES) and lack of resources or access to school. The pandemic limited economic opportunities for many families, and school-aged children are now relied upon to help assist in supporting their families. These students are therefore not regularly attending school, particularly

in rural areas where small family businesses are the norm (Interviewee #1, November 3, 2021).

6.2.1.3 Learning Indicators

While enrollment and desertion rates provide critical insight about students who have access to school and learning, we must also consider additional educational indicators such as illiteracy rates, learning gaps, and standardized test results in order to understand the overall health of an education system.

Illiteracy rates have decreased over the last three decades in Guanajuato. The number of illiterate adolescents reduced from 16 in every 100 in 1990 to 5 per 100 in 2020, with a higher concentration of illiteracy among women and in less populated areas (SEG, 2021). The most populated municipalities in the “industrial corridor” present the lowest rates of illiteracy, below not only the State’s 5.3% rate but also the national average of 4.7% (SEG, 2021).

Moreover, analyzing the existing academic lag contributes to the diagnostic of the education system. In Guanajuato, academic lag is classified into two levels, *rezago leve* (mild lag): when a student is enrolled in one grade below what is expected for their age, and *rezago grave* (serious lag): when a student is enrolled in two or more grades below their adequate grade-age level (SEG, 2021). Data shows that in 2021 15 to 17-year-olds represented the most serious challenge, with over 14% of the enrolled students experiencing some academic lag. Academic delays in primary and middle school education, while less severe, are not insignificant (SEG, 2021).

The National Plan for Evaluation (PLANEA) is the standardized exam used to measure students’ basic language and mathematics proficiency skills in Mexico. The results from the last pre-pandemic edition of the exam show that, on average, Guanajuato schools are performing slightly behind the national average in both primary and middle school (SEG, 2019). In Guanajuato, 61.6% of primary school students performed in the lowest level of proficiency in 2018 in mathematics. In middle school, the language results are very close to the national

average, showing an increase in the percentage of students in the lowest achievement level from 2015 (29.6%) to 2017 (32.8%) (SEG, 2019). Hence, it is possible to confirm that, despite being close to the national average results, Guanajuato's students are far from desired learning outcomes.

6.2.2 COVID-19 Impacts

In compliance with national guidance, Guanajuato suspended in-person classes on March 17, 2020 (SEG, 2020). The SEG leveraged federal programs such as *Aprende en Casa* and supplemented this with state-created resources such as *Escuela en casa*, *Guías*, *Cuadernillos*, *TV4 y Sitio web de SEG* (SEG, 2020). *Aprende en Casa* stemmed from a long-existing literacy program for rural and remote areas called *Telesecundaria* and is based on audiovisual content broadcasted through TV and the internet (Vincent-Lancrin, 2022). Additionally, during the school year, the SEG conducted an extensive quantitative and qualitative research initiative from May 2020 to November 2020. In the first phase of this research, over 36,000 educators participated, including teachers and principals, and in the second phase, over 85,000 families engaged in a survey. This research aimed to understand the educational conditions generated by the pandemic from the perspective of key stakeholders. In addition to these resources, teachers were given the autonomy to communicate with students and their families via instant messaging services and email (SEG, 2020).

In light of an uncertain and complex return to in-person classes, in 2020, the SEG also utilized the CONCURPRISE (*Concreción Curricular de Primaria y Secundaria*) program, which provides detailed documentation of teaching and learning goals (SEG, 2020a). This program has three main objectives: 1) provide teachers with a tool to identify an appropriate curricular progression for any given school year; 2) identify the essential competencies and content to support the teaching process of the next school grade; and 3) give autonomy to the *Consejos Técnicos Escolares* (technical school committees) to make decisions based on their contexts, focusing on the essential skills of the national curriculum (SEG, 2020a). This initiative gives

teachers the autonomy to adjust their lesson plans, making time and resource management more efficient in addressing their students' actual needs. CONCUPRISE brings a transversal lens to the content in each grade level, enabling teachers to make clear continuity between grades, fostering effective transitions for students (SEG, 2020a). By providing these resources, the SEG is equipping educators with didactic guidance and suggestions of relevant content that can be catered to each student.

Despite the efforts of the SEG to provide alternative means of instruction, a survey they conducted with over 30,000 teachers revealed that one-quarter of students in primary and middle school were not engaged with school, with some variation between grades (SEG, 2020). The rural areas faced higher barriers to access technology, thus resulting in unequal educational opportunities and potentially wider learning gaps when compared to children living in urban areas (SEG, 2021).

Interviews with fifteen stakeholders from the education system in Guanajuato, including teachers, principals, and students from primary schools, confirm that there was a significant disparity in access to the internet and educational opportunities during the school closures. Moreover, teachers highlighted the demotivation of students and their barriers to actively engage in school, which contributed to learning discontinuity (Interviewees #14 & #15, personal communication, December 8, 2021).

Even though data is still forthcoming that would conclusively quantify the impact of the remote schooling period, comparative research shows that significant learning loss can be expected. Globally, the COVID-19 pandemic has caused severe effects on education access, attendance, and engagement (Reimers et al., 2021). Similarly, due to limited resources and the fact that the current infrastructure primarily supports in-person instruction, the inequities that existed before the pandemic were exacerbated (Reimers et al., 2021). In line with this, two surveys conducted in 2019 and 2021 with students aged 10 to 15 years old in Mexico confirm learning losses in reading and mathematics and an increased disparity between low-SES and high-SES students (Hevia et al., 2021). Additionally, results show that learning

poverty, which is the inability to read at the age of ten, increased and that the most impacted were low-SES students, thus widening the existing learning gaps (Hevia et al., 2021). As the world seeks to recover from the devastating shock that COVID-19 is causing and navigate the uncertainty that comes from living in an ongoing pandemic, there is still reason to hope and tirelessly strive to build a better, more equitable future despite the current challenges.

6.2.3 Theory of Action

In order to overcome the challenges of the current education system and the lingering impact of COVID-19, the SEG has described their vision for the future in the form of a 10-point *Decálogo* document (SEG, 2021b). This document lays out high-level commitments that will hopefully act as a scaffold for future reforms and interventions (SEG, 2021b). These commitments were the result of an informed dialogue between different members of the SEG, local and international education experts, and other stakeholders. Some examples include building social-emotional skills, technological competencies, partnerships with community stakeholders, inclusive practices, building the capacities of teachers, and global citizenship and 21st-century skills (SEG, 2021b).

After gathering and contrasting different sources of data and narratives, the following Theory of Action summarizes what can be assumed to be the core beliefs around education and learning in Guanajuato:

If we provide access and appropriate learning opportunities to all students, strengthen our educators' professional development, focus on effective and innovative pedagogies—that include the development of social-emotional skills and technological competencies—and encourage autonomous learning among teachers and students, then the improved teaching and learning in Guanajuato will propel educational outcomes that enable its graduates to become life-long learners and global citizens.

This Theory of Action, along with the recommendations from the UNESCO report which will be further expanded on in the

next section, informed the creation of potential policy alternatives for the region.

6.3 Futures of Education

6.3.1 Five Proposals for Education

On November 10, 2021, a committee commissioned by UNESCO released a report titled *Reimagining Our Futures Together: A New Social Contract for Education*. In this report (2021), the committee members outline five “proposals for renewing education.” Each of these proposals contributes to a vision of education that promotes long-term, sustainable, and inclusive education for all (UNESCO, 2021). Based on what is known of the education system in Guanajuato, there is significant alignment with four out of the five of the UNESCO report’s proposals, which will be further detailed in the following section. While no formal impact evaluations have been conducted to precisely quantify the effects of many of Guanajuato’s initiatives, there is qualitative evidence about the programs available to inform this analysis.

6.3.1.1 Pedagogies of Cooperation and Solidarity

The first proposal in the UNESCO report, pedagogies of cooperation and solidarity, details the importance of the “intellectual, social, and moral capacities” of students to promote empathy and compassion (2021, p. 4). One way the education system in Guanajuato is aligned with this first proposal is through the *Programa Integral de Derechos Humanos en la Educación*, which aims to promote quality education through the understanding, actions, and defense of human rights in schools (Gobierno del Estado de Guanajuato, 2021a). To effectively implement this pedagogy, the SEG offers professional learning opportunities for teachers to strengthen their practices in the teaching of human rights (Gobierno del Estado de Guanajuato, 2021a), reaching approximately 3,400 students in primary and secondary schools across the State (F. Valles, personal communication, February 3, 2022). Another program, *Programa Estatal de Inclusión Educativa de Grupos en*

Situación de Vulnerabilidad, offered a space to create dialogue between the government and families of vulnerable groups, such as students with special needs integrating into general education schools (Gobierno del Estado de Guanajuato, 2021). By supporting families in parenting practices for children aged 0 to 3, they were able to reach 4,320 families from 370 rural communities across the State (F. Valles, personal communication, February 3, 2022). Through such programs, the government of Guanajuato continues to provide multiple avenues of inclusion for their most vulnerable students and their families.

6.3.1.2 Curricula and the Evolving Knowledge Commons

The second proposal from the UNESCO report seeks to connect educational content and competencies through partnerships with different stakeholders (UNESCO, 2021). The SEG is working towards the realization of this proposal through its *Mentefactura* initiative. *Desarrollo de la Mentefactura* (Intellectual Development) is a program that promotes innovative and entrepreneurial partnerships among its 50,000 citizens (Gobierno del Estado de Guanajuato, 2021c). By collaborating with Amazon Web Services (AWS), Inc., an Amazon Company (NASDAQ: AMZN), the *Mentefactura* program aims to provide technological skill development for 2,500 teachers and students from 24 participating educational institutions (Gobierno del Estado de Guanajuato, 2020). This program closely aligns with the UNESCO report's goal of the evolving knowledge commons, as it states, “partnerships between higher education institutions and communities in all parts of the world should become truly mutual.” (UNESCO, 2021, p. 76).

6.3.1.3 The Transformative Work of Teachers

The third relevant proposal outlined, focuses on the importance of collaboration among teachers, supporting their work, and maintaining their professionalism and autonomy in education. The report states that society should be “providing teachers with a wide margin of autonomy that is complemented with strong

supports” (UNESCO, 2021, p. 99). In the previously mentioned survey administered by the SEG, 96% of the teachers considered that professional development around technology skills is necessary (Gayol, 2021). To that end, several programs of the SEG respond to this need and align with the third proposal of the UNESCO report. These programs include *Profesionalización y Desarrollo Docente* and *Programa de Formación 2021*, which have been providing continuing education to 52,000 teachers in Guanajuato through professional learning opportunities, including training on social-emotional learning and technical skills (Polémica Guanajuato, 2021). Moreover, teachers expressed in the SEG 2020 survey that they valued having autonomous and flexible teaching and learning environments (SEG, 2020). As previously mentioned, the CONCUPRISE program is also aligned with this proposal, as it allows more freedom for teachers and trusts them as professionals to make decisions and effectively teach a modified curriculum.

Another aspect of this proposal is the call for families to support teachers in the education of their children (UNESCO, 2021). *Familias Corresponsables* is an initiative brought to life through a panel of experts that discussed how parents could support their children in the “digital age” of learning (Gobierno del Estado de Guanajuato, 2021b). This program identifies families as “co-responsible” for their children’s learning at home which ultimately supports the teacher’s work in school and has over 1,500 families participating (Gobierno del Estado de Guanajuato, 2021b). In doing so, they are creating dialogue and spaces for collaboration with families, aligning themselves with the third proposal of the UNESCO report.

6.3.1.4. Education Across Different Times and Spaces

The fourth relevant proposal from the UNESCO report encourages the reader to consider educational opportunities in various ways and spaces, including digital contexts and adult learning (UNESCO, 2021). In agreement with the UNESCO report, the development of 21st-century skills in the context of global citizenship and autonomous learning are equally

embedded in the SEG's current beliefs and practices. An example of this is the State's current program *Fortalecimiento de Centros Comunitarios Digitales* (INAEBA, n.d.), which currently operates in 117 facilities to provide access to technology and digital learning to those individuals that have not completed the mandatory levels of instruction (INAEBA, n.d.). Lastly, Guanajuato created the program *Ecosistema de Formación Docente*, which was a workshop organized through the University of Guanajuato to provide continuing education for teachers (Universidad de Guanajuato, 2018).

Building on the work already done across the State, the SEG can continue to enhance its programming to align even further with the ideals of the UNESCO report. The next section will present policy alternatives that could be leveraged to achieve this goal.

6.4 Analysis of Policy Alternatives

Taking into consideration the findings of the current situation in Guanajuato, the call to action presented by the UNESCO report, and their underlying Theory of Action, there is an opportunity for improvement within the system. The COVID-19 pandemic and other internal factors have put undue strain on the education system within Guanajuato. However, these issues are not unique to the State. Countries around the world have been and continue to be affected by school closures, and there are lessons to be learned from taking a comparative perspective. Not only can lessons be learned from outside the country, but strategies and systems currently in place can be leveraged. This section will critically present and examine three potential paths forward for consideration, building on the momentum already occurring within Guanajuato.

6.4.1 Possible Alternatives

6.4.1.1 Reinforcing Existing Structures

There are multiple ongoing initiatives attempting to elevate the teaching and learning experiences in Guanajuato within different levels of the system. This pathway proposes two

specific sets of adjustments: 1) Incentivizing Teacher Professional Development and 2) Engaging Families and Communities. These adjustments ultimately enhance existing strategies, structures, and practices that are already in place within Guanajuato's education system.

The first set of adjustments targets the existing professional development programs. UNESCO's report (2021) emphasizes how teachers are never complete or finished in their professional identities and capacities. Despite having professional development opportunities available, multiple teachers and principals from Guanajuato expressed that there are not enough incentives to voluntarily enroll in these courses, as participation would take teachers' personal time and resources. Using the existing structures and professional development opportunities already offered by the SEG, the teaching and learning in Guanajuato could benefit from two specific actions at the local level: first, from awareness and encouragement of participation on an individual level, and second, from public and open recognition for participating in professional development activities. It could be inferred that more teachers would enroll in these programs if there was increased visibility and awareness as well as an increase in recognition of those who successfully complete certifications.

The second set of adjustments is related to increasing the participation of families and other community members in the education of the youth. Through a series of fora named COEDU—which are open to the public—the SEG has already opened dialogue with families and other members of the community to discuss different education challenges (SEG, 2021c). Because voluntary participation is available through the Facebook platform, it can be assumed that only those families and community members with internet access can participate, making them far from successful in reaching all student households. A recent survey from the SEG performed in 2020 revealed that about 35% of households in the State had a computer or tablet, and 48.2% had internet access (Gayol, 2021). It is believed that the current program and the fora experiences could be enhanced to reach more community members with the help of local facilitators at the school or classroom level. Such

an initiative would improve equity by partially eliminating the requirement of having the technology to participate in the SEG's current virtual initiatives.

Even though this alternative is not accompanied by changes in curriculum or other structural major shifts, this strategy of elevating the existing system through local actions at the school level represents more than a *status quo*. This alternative should be considered as part of the possible approaches to attaining educational excellence and equity. Similar efforts could be performed beyond the areas of professional development and involvement of families, including—but not limited to—the partnerships of schools with local businesses, the practices of teacher collaboration, and the current assessment of student learning practices.

6.4.1.2 Back to Basics: A Restructured Curriculum

The second alternative is to focus on the basic building blocks of education, namely the skills of literacy and numeracy. As referenced earlier, based on the results of the most recent national standardized PLANEA test, it is clear that students in Guanajuato are performing below expected proficiency. While current results are still forthcoming, it can be assumed that the pandemic has only exacerbated these issues. When planning for the future, policymakers need to take into serious consideration the toll the COVID-19 disruption has had on learning, as educators are faced with the challenge of ameliorating months of potential learning loss. Society can remain hopeful that the world will stabilize and become more predictable, but the past realities and present circumstances cannot be ignored. Guanajuato may benefit from a return to basics in the short term in order to re-establish standards and base level skills to catch up after months of great volatility.

One potential way of doing this is through a basic skills curriculum. By focusing on foundational building blocks, both students and teachers will be confidently equipped to engage with more complex topics in the future. A recent example of the successful implementation of a Back to Basics strategy can be seen in Portugal's ambitious reform efforts that unfolded from

2011 to 2015. Former Minister of Education of Portugal, Nuno Crato, reflected back on the period of ‘back to basics curriculum’ insisting that “without a base in substantive knowledge, students cannot get an appreciation for any subject, cannot develop advanced skills, cannot progress in any career, cannot attain higher-level knowledge and skills in any subject” (Crato, 2020, p. 215). Portugal demonstrated a successful shift in learning objectives that centered on the essential foundation of basic numeracy and literacy and incorporated clear guidelines. Education leaders found that prior attempts to teach broadly had detrimental effects on students and insisted that “breadth should not and cannot be attained at the expense of structured knowledge” (Crato, 2020, p. 215).

Based on what is known thus far, this streamlined and potentially simplified curriculum approach could be what the Guanajuato school system needs. This path would require a curriculum restructuring that relies on coordination and collaboration with the federal government that could potentially take time to create and implement. However, the results could have profoundly positive effects on learning outcomes, as seen in Portugal’s education system (Crato, 2020).

6.4.1.3 Accelerated Learning

This alternative outlines a strategy that seeks to combine both the existing structures within Guanajuato while also incorporating high expectations for the future. The proposal is to adapt and build out the CONCUPRISE curriculum to embody the goals of an Accelerated Learning Program (ALP). While many of the goals of CONCUPRISE already align with these aims, there are additional areas of opportunity to enhance and implement this strategy State-wide. This effort would take increased synergies across the cultural, educational, and political arenas. If executed effectively, this strategy could build trust between families and schools, potentially remedying low enrollment and desertion.

An existing framework from The New Teacher Project (TNTP) provides detail into what encompasses an Accelerated Learning Program. One of the first main points is to create a diverse

planning team made up of various stakeholders in the school community – students, teachers, family members, and school leaders (TNTP, 2020). This team would be in charge of proposing various plans for different potential instructional scenarios such as virtual learning, staggered schedules, accommodating physical distancing, rolling closures due to waves of COVID variants, and regular in-person schedules. The principles of Accelerated Learning are as follow (TNTP, 2020, p. 7):

1. Accelerated learning and cultural, social, and emotional responsiveness are not mutually exclusive.
2. Accelerated learning and strong instruction are interdependent.
3. Accelerated learning and strong instruction should not cause further trauma.

Each of these principles emphasizes inclusiveness, high expectations, and high-quality instruction. This is especially important to keep in mind, as students who have historically not had access to high-quality education will “need to fit even more than a year of learning into a single school year to make up for the learning they’ve lost” (TNTP, 2020, p. 7).

According to TNTP, the idea behind Accelerated Learning is to teach grade-level skills and content while providing “just in time” scaffolds to help fill the learning gaps as they come up in the school year, rather than keep students “trapped in a cycle of low-quality or below-grade level work” (2020, p. 7). These learning gaps are pre-determined by a school-level acceleration team and assessments before the school year begins (TNTP, 2020). For the purposes of contextual modifications, we recommend a system-level acceleration team with cascading support towards Guanajuato’s implementation efforts of an ALP. TNTP (2020) provides examples of how to fill those gaps: rather than replacing grade-level materials with something that would be easier to comprehend, the teacher can identify critical skills and content knowledge to understand the text and supplement it with ready-made scaffolds. It emphasizes identifying the “most important skills and concepts of each unit of study or standard” (TNTP, 2020, p. 9) and teaching one or

two lessons that address those skills and concepts to prepare students just before the grade-level work is taught (TNTP, 2020). In Guanajuato, there is already a strong foundation in identifying these important skills as seen through the CONCUPRISE program. Taking this proof of concept and thinking about using this tool on a system-wide level, TNTP has provided overall guidelines for decision-makers to think through when implementing Accelerated Learning on a system-wide scale.

A UNESCO document published in 2013 provides more context of Accelerated Learning Programs (ALPs) in a cross-country analysis of fifteen different programs (Longden, 2013). The report covers a wide range of program rollouts from a specific area or population group to the education system for an entire country, highlighting the strategies' ability to be applied in many different contexts. This analysis found that all programs shared similar key features such as “small class sizes, teachers receiving ongoing support, active learning approaches, a regular supply of materials, and a curriculum of heightened relevance that focuses on foundational skills in the early years” (Longden, 2013, p. 27). While these indicators do provide a consistent definition of how an ALP should be structured, there is room for great creativity and flexibility to account for a particular context. Another key finding from the report is the heavy reliance on community involvement that is at the core of a successful ALP (Longden, 2013). Ultimately, the study suggests that ALPs can be a “cost-effective approach of providing marginalized children with a basic education” (Longden, 2013, p. 27).

An example of accelerated learning being deployed as a classroom-level intervention can be seen in *Projeto Autonomia Carioca* in Brazil. The project started in 2010 across 205 public schools as an initiative to address the challenges of drop-out by “gradually reducing the age-grade gap” (Xavier & Canedo, 2012, p. 146). *Projeto Autonomia Carioca* was a public-private partnership in which educational material was provided by a private institution and created in Brazilian universities (Xavier & Canedo, 2012). The classes with students who had learning difficulties and were potential candidates for repeating grades or

deserting school were given “special attention from the teacher and managers regarding school attendance, task performance, behavior in classroom and interaction with colleagues and teachers” (Xavier & Canedo, 2012, p. 146). Through differentiated learning, the program not only aspired to recover learning that was lost in previous grades but also aimed at “recovering self-esteem, developing habits of study, school frequency, behavior in class and learning the basic issues, which would enable them to continue their schooling” (Xavier & Canedo, 2012, p. 146). Xavier & Canedo (2012) confirmed that acceleration projects can help students move toward reaching performance levels similar to regular classes. It is evident that not only would Accelerated Learning help Guanajuato to build back better, but it would also closely align with the proposals outlined in the UNESCO report.

6.4.2 Selection Criteria & Analysis

In order to critically examine the feasibility of the outlined alternatives, this section offers four selection criteria, which will provide clarity and rationale for the final recommendations. Firstly, it is important to take into account the budgetary limitations at play within a system, especially due to the strain that COVID-19 placed upon governments. Hence, it is critical to analyze the alternatives through a financial feasibility lens. Secondly, as seen through the previous attempts to implement education reforms worldwide, it is crucial to build support from the political ecosystem and society for an effective policy rollout. This political feasibility should be given careful consideration to ensure the policy recommendation has the necessary buy-in from all relevant stakeholders. The third criteria to evaluate the proposals must be to maximize the operational feasibility of the policy, which considers the system’s existing structures and the need for capacity-building efforts aiming at successful implementation. Finally, considering Guanajuato’s mission and responsibility to provide an inclusive quality education to all its students, it is fundamental to examine how each alternative should actively maximize equity in Guanajuato.

Based on the criteria described, a trade-off analysis informed a decision-making process that resulted in the recommendation for the SEG. The Reinforcing Existing Structures alternative is the most financially and operationally feasible option considering its reliance on existing structures and capacity. Operationally, the SEG would not need any additional capacity building, but rather to reorganize and incorporate the opportunities brought by COVID-19 within the functioning system. In terms of political feasibility, on one hand, this option is a path of least resistance, as it does not introduce radical changes to the *status quo*. On the other hand, it does not directly address the current stark inequalities, thus being weaker politically. Additionally, this alternative does not work to increase equity in the state, as it has the potential to reinforce the disparate status quo.

The second pathway of a Back to Basics curriculum poses concerns when considering political feasibility. It requires a reexamination of the curriculum, and Guanajuato would need to garner strong support and collaboration not only locally but on a country-wide scale. This change in the curriculum would also incur high financial and operational costs, such as the new curriculum creation and intense professional development needs. In terms of equity, this one-size-fits-all approach does not leave room to address the distinct needs of a variety of learners.

In juxtaposition to this, the third option of implementing an Accelerated Learning Program would leverage a more holistic and customized approach that can be adapted to each individual learner, proving this option to be the most equitable. In terms of operational feasibility, the CONCUPRISE program that is already in place provides strong building blocks on which to expand and implement an Accelerated Learning Program on a state-wide level. Regarding political feasibility, Guanajuato has shown initiative in creating the CONCUPRISE program, which alludes to the current political will and momentum as a response to COVID-19. This program has been implemented in the last year and interviews conducted demonstrate that teachers have bought into the program (Interviewees #9, #10, #12, & #13, personal communication, December 8, 2021). Lastly, compared to other options, this path is costly as it requires the allocation

of professionals both in the conception and implementation of this specific policy and teacher professional development on a large scale. However, the identification of essential skills in the CONCUPRISE program lays the groundwork for the creation of an Accelerated Learning Program, thus cutting down on the overall cost of this alternative.

6.5 Final Recommendation

Given all of the above and based on a critical examination of the available data and literature review, the recommendation for the SEG is to implement a state-wide Accelerated Learning Program that combines the prioritization of the essential content knowledge and skills within the grade-level curriculum. The evaluation of criteria reveals that, even though there will be some financial and operational strains, the political support and, ultimately, the value in creating a more equitable education system makes Accelerated Learning the best option for advancing the quality of education in the State.

To further expound upon the rationale for this choice, elements from the existing structure also can be leveraged to support this implementation. For example, similar to the adjustments outlined in path one, there are simple strategies to increase the engagement of teachers with professional development and support the dissemination of an Accelerated Learning Program. By supporting and recognizing teachers' efforts to implement this new program, buy-in can be built around this strategy with the goal of transforming and inspiring the system as a whole. Families and communities will also play an integral role in creating this new social contract, and the power of the co-responsible capabilities that resulted from the COVID-19 pandemic can be harnessed and leveraged.

As seen through COVID-19, teacher autonomy was relied upon in order to support learning through school shutdowns, and an Accelerated Learning Program would seize upon this unexpected opportunity by continuing to allow stakeholders to determine learning gaps and for teachers to decide how to address them. Furthermore, an acceleration team is a way to engage diverse stakeholders and promote collaboration in

school communities, which is an important aspect of the UNESCO report's third proposal, the transformative work of teachers. This also aligns with the current programming around community and family responsibility. Additionally, providing professional learning opportunities would strengthen teaching as a profession, creating tangible capacity-building skills that support student learning. All these factors and ingrained capabilities confirm the relevance and feasibility of an Accelerated Learning Program policy.

6.6 Conclusion

After a deep analysis of the existing programs within Guanajuato's education system, it is clear there is a strong core alignment between the SEG's mission and the UNESCO report's call to action. That said, Guanajuato faces many persisting challenges to its education system, including enrollment, quality of instruction, and inequality. It is also likely that the COVID-19 pandemic will continue to exacerbate inequalities in education on a global scale, forcing governments to adjust to a "new normal" and look for ways to support the most vulnerable groups. To that end, the recommendation to implement an Accelerated Learning intervention could be leveraged by the SEG to address these serious issues while providing flexibility to account for the varying needs of the population.

An Accelerated Learning Program would leverage a specific approach to the national curriculum, which allows teachers to assess the gaps in student learning while still providing students with grade-level content. Rather than remediating and simply repeating missed material, a scaffolded approach would be used to fill in these gaps while providing contextualized and individualized content for every classroom. The collaboration needed to create a successful ALP must extend beyond school walls and establish families and communities as co-responsible actors in their children's education. Building on the momentum and open lines of communication created during the remote learning time, an ALP would bring these local voices into the conversation and rely on their on-the-ground knowledge of

individual and collective student needs. The hope is that by employing this innovative and perspective-shifting strategy, all stakeholders within the education system will actively engage in building a strong future of education. While COVID-19 has the potential to exacerbate and intensify inequity and low academic achievement, this type of strategy can act as a catalyst that will propel learners, teachers, and communities into the future. Guanajuato is perfectly positioned to capitalize on the urgency created by COVID-19 and the UNESCO report's invitation to author a new social contract and create a culture of inclusivity and collaboration. As outlined in this paper, the authors are confident that an Accelerated Learning Program has the potential and capacity to support the delivery of quality and excellent education standards to all students in Guanajuato.

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Chapter Seven. Jalisco, Mexico

Reimagining the Future of Education through *Recrea*

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Abstract

In this chapter we analyze how Jalisco's State Project *Recrea* aligns with the key ideas presented in the UNESCO Report and offer recommendations to move Jalisco's Education System closer to UNESCO's vision. *Recrea* is a state project that believes education is a key lever for preparing responsible citizens. This chapter presents the key components of *Recrea* including its vision, goals, and implementation status. The analysis was based on primary qualitative and quantitative data and on literature review, as well as comparative evidence to support the recommendations. Considering the main areas of opportunities identified, this chapter presents eight recommendations grouped in three major areas: (i) strengthening Learning Communities for and through Life (CAV), (ii) structured efforts for teacher development, and (iii) inclusive education.

7.1. Introduction

In 2019, Jalisco, one of the 32 states of Mexico, announced *Recrea*, an ambitious state project to reform education by the year 2040. This chapter focuses on examining how Jalisco's *Recrea* aligns with key ideas in UNESCO's Reimagining Our Futures Together: A New Social Contract for Education ('UNESCO Report') and offering recommendations on how to move *Recrea* closer to UNESCO's visions. Section 1 lays out our data sources and the methodology. Section 2 is an overview of *Recrea* and its implementation status. In section 3, we introduce the fundamental ideas of the UNESCO Report and discuss the main

alignments between the report and *Recrea*. Finally, in sections 4 and 5 we present recommendations for increasing the alignment with the UNESCO Report and strengthening the impact of *Recrea*.

Mexico has a partially decentralized education system, and the federal government is the biggest contributor to the education budget. There is a National Curriculum, but teachers and schools have autonomy as to how to deliver the required content (SEP, 2016). Several aspects of teachers' careers are solely regulated by the federal government, such as requirements for teacher education (offered by the *Normales*), salaries and criteria for promotion. For the 2020-2021 school year, Jalisco had 2,340,917 students, which is 7% of the total student population in the country. In the K-12 system, there are 1,660,553 students, 13,415 schools and 79,770 teachers (SEEJ, 2020).

Methodology: The data reported in this chapter was gathered through secondary desk research, an online survey, two rounds of interviews and one focus group discussion. The first round of interviews and focus group were held in-person in Cambridge (USA) in October 2021 with key officials of Jalisco's Secretariat of Education ("SEEJ") including the Secretary of Education, directors, teachers, and a principal. The second round of interviews was conducted remotely in November and December 2021 with officials from the Commission for Continuous Improvement of Jalisco ("CEMEJ") and the Teacher Department at SEEJ.

In collaboration with the SEEJ team, we developed an online survey ("Survey")¹ with the objective of disseminating the UNESCO Report and assessing *Recrea's* alignment with the ideas presented on the report. The Survey was answered by 1,888 respondents including principals (161), teachers (1,296), students (287) and supervisors (49). Although it presents relevant information that backs up the analysis, selection bias is a limitation to the internal validity of the Survey – it was not

¹ Questions and results of the survey can be accessed at <https://bit.ly/Chapter7JaliscoMexico>

mandatory, and it was disseminated in an event promoted by SEEJ in November 2021 mainly answered by virtual and in person attendants of that event.

7.2. Jalisco's State Project – *Recrea*

In February 2018, the then State Governor candidate, Enrique Alfaro Ramírez, released an initial proposal for a state-level education project based on a process of participative diagnosis. Once elected, the document was opened for a consultative process and over 18,000 contributions were received, informing the launch of *Recrea* in April 2019 (*Recrea*, 2019).

Recrea was designed using a humanistic and life-centered approach with the goal of preparing responsible citizens able to tackle personal and collective challenges. To achieve this, education was envisioned as for and through life - enhancing the student's ability to fully participate in the life of the community by learning through authentic experiences and exchanges. This ideal *Recrea* Citizen is represented through ten characteristics, such as social responsibility and respect for diversity, and sets a reference for the alignment of all educational practices.

The underlying theory of change for *Recrea* can be summarized as: **If** we increase school capacity and empower teachers, students, principals, and families to collectively reflect upon, propose and implement changes in their practices **then** communities within and around schools can become autonomous learning organizations and **then** students will be able to engage in meaningful and critical ways with their communities and in their lives as *Recrea* Citizen.

Figure 1 encapsulates key components of *Recrea*: by describing guiding principles and main strategies to fulfil the vision.

Educación para Refundar 2040 (Education to rebuild 2040)						
Rebuilding Principles						
Citizenship Formulation		Learning Quality			Inclusion and Equity	
Strategic Lines						
Schools for Life	Learning Communities for and through life (CAVs)	Educational Infrastructure	Development of Educational Professionals	Digital Culture	Families' co-responsibilities in education	Coordination for education innovation

Figure 1: Key Components of Recrea

7.3. Implementation Status and Results

Recrea has made strides in various strategic lines since its implementation in 2019 and in 2021, SEEJ introduced key indicators to assess the implementation of each line. However, those have not yet been measured. Thus, the implementation status in this section has been evaluated based on available partial data, as well as on data collected for this chapter. The level of implementation of each strategic line varied greatly², and the ones that are more relevant for our analysis are described below.

CAVs: The development of Learning Communities for and through Life (“CAV”) aims to create spaces for autonomous reflections and problem solving in all levels of the education system. SEEJ is responsible for providing tools and structure for those reflections, but each education institution is free to implement it. At the school level, a space for CAV’s reflective dialogues is the Educative Technical Council (“CTE”), that meet once a month comprising of teachers, principals, the supervisor of the region and other school stakeholders to discuss current challenges using guidelines provided by SEEJ. In 2021, 32% of all educational institutions are in the process of establishing themselves as CAVs (CEMEJ, 2021a). Teachers stated that

² Detailed progress of each line has been summarized and can be accessed at <https://bit.ly/Chapter7JaliscoMexico>

CAVs promoted innovation and collaboration at the school level (Focus Group, 2021).

Digital culture: This strategic line aims to increase the digitalization of administrative systems and to promote a digital culture in the schools and in SEEJ. The Platform *Recrea* Digital facilitates communications and content distributions from SEEJ, and currently includes courses and resources for teachers, students and families, as well as tools for school administration (*Recrea* Digital, 2020). However, at the classroom level 39% of teachers stated they do not feel they had enough support to help students develop digital skills (Survey, 2021)

Development of Education Professionals: This strategic line aims to improve labor conditions for teachers, recognize successful practices and experiences, and strengthen initial and continuous professional development. While there is a plethora of courses, webinars and workshops available for teachers, they are scattered and there is no clear path for professional development. Furthermore, there are also institutional constraints in the process of hiring and promotion which are controlled by the central government.

7.4. UNESCO Report and its Alignment To Jalisco's Reforms

UNESCO identified education as a key lever for positive responses to current global challenges such as climate change, democratic backsliding and inequitable technological advancement in artificial intelligence. Thus, the UNESCO Report roots 'a new social contract for education' on the principles of human rights: inclusion and equity, cooperation and solidarity, and collective responsibility and interconnectedness.

Recrea's foundation is aligned to UNESCO's vision on the role of education in rebuilding communities in a sustainable world. Both emphasize the importance of learning quality and equity and inclusion to develop future responsible citizens. Aside from that, many specific priorities defined by UNESCO Report are contemplated by *Recrea's* proposals:

Pedagogies of cooperation and solidarity: Citizen *Recrea* vision emphasizes the interconnectedness between schools and communities and promotes student solidarity and collaboration. The Survey found that 82% of students agreed or partially agreed that they have opportunities to collaborate inside the classrooms.

Curriculum and the Evolving Knowledge Commons: UNESCO Report highlights curricular priorities such as citizenship, social emotional learning (“SEL”), and digital skills. These are also fundamental competencies according to the National Mexican Curriculum of 2016 and are characteristics of the *Recrea* Citizen. During the academic year 2020-21, that were used by 58% of the CAVs (CTE, 2021). In the Survey, 70.8% of the teachers stated that they have been supported to develop social emotional skills among the students. UNESCO Report also calls attention to the importance of fostering “appreciation for the interconnectedness of environmental, societal and economic well-being” (UNESCO, 2021). Accordingly, 79% of teachers and 74% of students stated that current global issues, such as climate change, are discussed in class (Survey, 2021).

Safeguarding and transforming schools: CAV’s principles incorporate pedagogy of care, promoting personal care, care for others and care for the planet in their reflexive dialogues (Interview 9, 2021). This is consistent with UNESCO Report’s vision of schools as central pillars of larger ecosystems. The UNESCO Report also highlights digital literacy and access to technology as basic rights of this century and envisions schools as places that secure this right. As of 2021, 52.3% of schools have internet access (CEMEJ, 2021c), and 33% of respondents of the Survey agreed that schools are well equipped with access to internet and/or technological resources (Survey, 2021). This is a considerable challenge, but there are ongoing efforts and a plan for assuring digital infrastructure to 100% of schools by the start of the school year 2022-2023.

The transformative work of teachers: UNESCO Report addresses the importance of collaborative work among teachers and recommends the introduction of pedagogical councils that provide support and freedom. This is connected to the strategy of CAVs, in which learning happens through a continuous

process of reflexive dialogue and creation of shared visions for change among education stakeholders. 82.7% of teachers agreed or partially agreed that CAVs provide them opportunities to collaborate with each other (Survey, 2021). Additionally, *Recrea* prioritizes improving the perceived value of teachers and their professional development. In the survey, 65.3% of teachers agree or partially agree that teachers are valued by the SEEJ and 62% agree or partially agree that teachers are valued by the community (Survey, 2021).

Education Across Different Time and Spaces: UNESCO Report recommends the right to education “to be broadened to be lifelong and encompass the right to information, culture, science and connectivity” (UNESCO, 2021). SEEJ is focused on basic education (equivalent to K-12), and thus lifelong learning is beyond the scope of *Recrea*. Nevertheless, there are initiatives to promote learning experiences for parents and community members, both through digital content offered on the *Recrea* Digital platform, and through local CAVs within the context of the strategic line Families’ Co-responsibility in Education. 65% of students agreed or partially agreed that families have opportunities to learn and participate in educational activities (Survey, 2021).

7.5. Recommendations

While many aspects of *Recrea* are coherent with the vision of UNESCO Report, there is scope for refining *Recrea* in light of the priorities highlighted in UNESCO Report. Considering the centrality of CAVs to *Recrea*’s strategy and its alignment with UNESCO Report, our recommendations are built within the strategic line of CAVs. Therefore, our first set of recommendations aim to strengthen the CAVs and expand its impact; and the subsequent recommendations on teachers’ professional development and inclusion are aimed at taking advantage of CAVs to shift practices that are currently not in accordance with UNESCO Report’s vision.

7.5.1. Strengthening CAVs – The Overarching Strategy

Our belief in the potential of CAVs is grounded in its coherence with Kool's model of Schools as Learning Organizations ("SLO"), particularly in the dimensions of "a shared vision centered on the learning of all students" (the *Citizen Recrea*), "spaces of collaboration among all staff" (the CTEs) and "a culture of inquiry, exploration and innovation" (Kools, 2016).

The focus groups, interviews and the Survey revealed wide support for CAVs across different levels of the education system: not only do schools operate as CAVs, whole departments in the SEEJ have adopted the model in their operations (Interview 7, 9 and Focus Group, 2021). Our recommendation is to strengthen the CAVs through: 1. The expansion of the number of educational institutions operating as CAVs; 2. Collaboration between educational institutions within the same region and 3. Creation of a digital space for collaboration. Those will ultimately lead to more effective interactions between schools and systems and to schools increasingly prepared to tackle their own challenges, contributing to relevant and contextualized learning experiences.

Recommendation 1: Organically increase the number of CAVs

Recrea's vision is to grant autonomy to all educational institutions, and thus, by design, the implementation of CAVs is not mandatory. Earning the support of the members of each institution, including students and parents, is crucial for their long-term continuity (Reimers, 2021). Keeping this in mind, **expansion must be promoted by the example of CAVs that are already operating.** One reference is the expansion of LeerKRACHT organization, in the Netherlands. This non-governmental initiative implements collective work at school level, and rapidly reached 10% of all secondary schools in the country only through word-of-mouth advertising from teachers and school leaders, who came to believe that collaboration within and across schools was essential for improving their practices (van Tartwijk and Lockhorts, 2014).

To that end, SEEJ must create opportunities to share the outcomes of the established CAVs – through events, reports, testimonials and CAV observations – as well as offer ample support for the educational institutions that express the interest of becoming a CAV, both in terms of material resources and capacity building. The fact that there are already several successful CAVs in operation helps establish the connection of operational CAVs with educational institutions in the path to establish themselves as CAVs, based on a structure of mentor organizations.

Recommendation 2: Increase collaboration between educational institutions

The collaboration between different educational institutions is another lever for the process of expansion of CAVs. More than that, it is also a strategic goal to be pursued: according to UNESCO Report, collaboration should happen not only among teachers at the same school, but also among networks of schools and other educational communities.

SEEJ plans on conducting regional meetings with the goal of systematizing experiences from the CAVs, in which each CAV will have the opportunity to share experiences related to either classroom practices, family involvement, collective learning, or individual development (Interview 9, 2021). Accordingly, **we recommend that those regional meetings should be held once a quarter to sustain the collaborative development of CAVs.** The theme for each meeting can be decided by the group according to the priority challenges of that region, and the meetings could be facilitated by the host school principal. This process would eventually culminate in the establishment of a Regional CAV – a body that was foreseen in the original design of *Recrea* (CEMEJ, 2021b) but has not yet been implemented.

Recommendation 3: Create a digital space for knowledge exchange

The **final recommendation is to include in the platform *Recrea* Digital a repository of practices**, enabling the collaboration between CAVs that are not within the same region. In this platform, teachers and principals could access

experiences from different CAVs, and adapt them to apply in their own contexts. This can be modeled on RESPIRE, a French platform in which educators share their knowledge, practices, problems and resources, strengthening professionalism and innovation. RESPIRE is maintained and organized by the central Ministry of Education, and as of 2015 had a bank of over 2500 innovations uploaded by practitioners, supporting professional learning communities across the country (OECD, 2015). The comparison with the French platform is pertinent because such collaboration relies on a strong sense of collectiveness among teachers, reflected by the strength of teachers' unions in both countries. A caveat to the comparison, however, is teachers' level of connectivity – in a survey conducted in the beginning of the pandemic, 67% of the teachers in Jalisco declared their devices were not appropriate to support online instruction, and 73% of them had unstable internet connection (CEMEJ, 2021a). Meanwhile, about 40% of French teachers reported having insufficient internet access (OECD, 2020). Accessibility is, thus, a barrier that must be addressed to enable full engagement of teachers.

A collaborative community mediated by technology is aligned with UNESCO's vision of teaching as a collaborative profession and reinforced by Kools' vision of SLO, by which all knowledge should be systematized to enable it to become “organizational knowledge” (Kools, 2016). This platform would also address SEEJ's ongoing challenge of systematizing the experience of CAVs, by making teachers protagonists of this process (CEMEJ, 2021a). To guarantee their engagement, it will be important to create structured incentives and provide adequate resources, which will be covered in detail as a strategy for the appreciation of the teaching profession in sections 4.2.3 and 4.2.4.

All of the above recommendations are focused on strengthening CAVs, turning Jalisco's education system into a Learning System, and increasing its capacity to adapt and respond to challenges (Kools, 2016). However, to stimulate innovation and avoid risks of amplifying poor judgment, it is important that increased levels of autonomy are accompanied by increased levels of preparedness of the teaching workforce (Schleicher, 2018). In the following section, we discuss how the strategy of

CAVs can support and be supported by the advancement of teacher professional development.

7.5.2. Structured Efforts for Teacher Development

There are initiatives to strengthen teacher professional development (‘PD’) embedded in *Recrea*’s strategic line “Development of Education Professionals”. Nevertheless, those initiatives have no clear focus and are offered by different offices that are not coordinated. This presents an opportunity to incorporate UNESCO Report’s “life-entangled journey of teacher development” (UNESCO, 2021), that includes teacher recruitment, teacher initial education, induction of novice teachers, and continuing PD.

A large number of policies for teachers are dictated by the federal level, particularly policies on teacher initial education, salaries, and promotions. Recently, a structured path for career progression, the System for Teachers Career (USICAMM), has been implemented by the federal government and it will impact the incentives for teachers in all states, including Jalisco. The states enjoy some flexibility to complement policies on teacher recruitment and continuing PD, and thus those will be the focus of recommendations. Additionally, based on UNESCO Report’s vision of recognizing teachers for their work as knowledge producers, we will discuss *Recrea*’s ongoing efforts and suggest specific actions to fulfill this vision. The recommendations in this section will lead to better prepared and valued teachers which will ultimately improve student learning.

Recommendation 1: Attract high-school students into teaching

In Jalisco, there is currently higher demand than spots in the *Normales* (equivalent to teachers’ colleges) and almost all spots are filled every year (Interview 8, 2021). However, for physics, chemistry, and mathematics (‘PCM’), there is often a shortage of candidates – which is reflected in a shortage of specialized teachers in the secondary level, which then negatively impacts the interest and development of students. The common procedure is for the *Normales* to invite applicants that were not

shortlisted for other subjects to fill those vacant spots in PCM, which compromises the quality and motivation of the aspiring teachers. Although SEEJ cannot influence the number of spots at *Normales*, it can influence the advertising of the application process and potentially the quality of applicants (Interviews 8 and 9, 2021). Currently, this process consists of publishing the information on the SEEJ website and some advertisements in social media (Interview 8, 2021).

To increase the overall attractiveness of the teaching profession among high school students, **we recommend implementing internship programs for prospective students of *Normales*.** This can be modeled on the internship programs offered by the National Institute of Education in Singapore, in which potential applicants to the teachers' college receive scholarships to teach in a real classroom for periods that range from one week to three months (Jensen, 2012). In the case of Singapore students have financial incentives. In Jalisco, high school students are required to fulfill 240 hours of social service to earn a high school degree (SEMS, n.d.). Those hours can be completed through short-term internships for in-school or after-school activities in public institutions, especially focusing on PCM programs. Furthermore, once Regional CAVs are implemented, they can facilitate the placement of interns from local high schools in basic education institutions. Evidence from Singapore indicates that those internships help nurture interest in the teaching profession among high school students (Jensen, 2012).

Recommendation 2: Increase PD's relevance and structure through CAVs

In Jalisco, the Survey results indicate that 71% of teachers, 72.2% of principals and 83.7% of supervisors agreed or partially agreed that teachers have access to relevant and high-quality PD. However, PD mostly takes the form of "one-shot" experiences that are unrelated to the specific needs of teachers and provide no follow-up. Besides, they are heavily dependent on the teacher's own initiative and motivation (Interview 5, 2021). SEEJ's Office for Teacher Training ('CAM') offers a range of webinars, workshops, courses, and specializations. Most teachers only participate either in webinars or workshops, whose

length ranges from 2 hours to 20 hours (Interview 6, 2021). The Office of Teachers' Graduate Studies ("TGS") also offers specializations, as well as Master's degrees and PhD's. However, these two offices work in silos and their offerings are not connected. There are also limitations regarding accessibility, because CAM's three training centers are located only in bigger cities.

UNESCO Report notes that the most effective PD programs extend over relatively long periods of time and are at least in part embedded in school experience. To better align the PD offering in Jalisco to best practices and to the vision of UNESCO Report, **we recommend a five-step strategy to continuously inform SEEJ's teacher department about the needs of teachers.** The **first step** is to map needs that may not be visible to or felt directly by the school community, guaranteeing that "information about what students need to know and do is used to identify what teachers need to know and do" (Timperley, 2008). This can be done through a survey applied by SEEJ to different stakeholders, such as families, university leaders, and hiring companies, to compare their perceptions of the basic education graduate to the expected *Recrea Citizen*. The **second step** is to share with CAVs the survey results disaggregated by region, along with a CTE discussion guideline that allows them to reflect on their practices and context. The result of this collaborative reflection will be a comprehensive analysis of both what they want and what they need for PD (Timperley, 2008). The **third step** is for this analysis to be shared with the teacher department, either through a survey or through the structure of supervisors. Once there is a clear idea of each CAV's PD needs, the **fourth step** is to coordinate efforts from different offices, organizing all PD offerings in one place, with programs that build on each other to offer increasing levels of depth. Regional CAVs can work as local hubs for training, and universities and private providers may contribute to the development of new contextualized programs. This coordination will contribute to longer and more interconnected trajectories of PD, in which teachers receive training embedded in their school environment, and at the same time enjoy the autonomy of finding and engaging in programs that are relevant to them. Finally, a **fifth step** is to assess the impact of the PD on students' outcomes

through a new round of needs assessment, iterating the whole five-step strategy on a yearly basis.

The five-step strategy is based on Villegas-Reimers (2003) suggestion that teacher preparation should be a lifelong learning process, in which courses and workshops are just two of many elements of growth and learning. The recommendation also takes into consideration the findings that longer training programs are more effective to increase student performance (Darling-Hammond et al, 2010). It also draws on the idea that in SLOs, staff should be fully engaged in identifying the aims and priorities for their own professional learning (Kools, 2016).

Recommendation 3: Recognize teachers as knowledge producers

According to Survey, 72.6% of teachers, 70.8% of principals and 77.6% of supervisors agreed or partially agreed that teachers have enough support to produce and share knowledge about successful classroom pedagogical practices. Indeed, the school-based inquiry processes promoted by CAVs enable the consolidation and sharing of procedural knowledge based on teachers' experiences (Focus Group, 2021). Additionally, teachers have opportunities to produce reports and research based on their own classroom practices when they participate in some of the workshops and graduate programs (Interview 6 and 7, 2021). However, the systematization and dissemination of this body of knowledge are limited. A few selected teachers shared their experiences in a space of the event *Recrea Academy 2021* (Recrea Academy, 2021). Meanwhile, the research produced in PD programs only reaches a limited audience at the end of the programs and is not used or shared after that (Interview 6, 2021).

The UNESCO Report stresses that “teachers should be recognized for their work as knowledge producers”, contributing to the transformation of educational environments, policies, research, and practice, within and beyond their own profession (UNESCO, 2021). Therefore, **we recommend SEEJ to create systems of incentives for teachers to register and share their experiences and learning** – either with their Regional CAVs (Section 4.1.2) or via the platform *Recrea Digital* (Section 4.1.3). Stimulating teacher participation is important

because of the tendency that knowledge in the field of education “remain where it is unless there are powerful incentives to share it” (Schleicher, 2018). Hence, high-quality reports on interventions could be associated with career progression (such as additional points in processes of horizontal promotion) and be eligible to receive awards and exclusive opportunities. Specifically, we recommend strengthening lesson and research competitions such as the existing *Recrea and Comparte*, contributing to the dissemination of practices and enabling the teacher community to learn both from what is working and what it is not. A good reference is the Chinese lesson competition (*gong kai ke*) in which teachers showcase lessons to the school community or to larger audiences at the district or city level, and the best instructional practices are rewarded and shared with the teaching community at large (Liang et. al., 2016). China is also a reference for another source of stimulus – there, teachers have facilitated access to research grants and funding to pilot new programs (Schleicher, 2018).

Even more important than systems of incentive, though, is to facilitate the production and submission of such practices. In Jalisco, as in so many other parts of the world, teachers are subject to a heavy workload (Interview 6, 2021). To tackle that barrier, the format for registering and submitting practices must be simple and not time-consuming, and it must also generate content that is easily understood and adapted on the other side.

All the recommendations regarding teacher preparedness aim to professionalize the workforce and support them in reflecting and promoting solutions to their particular challenges, ultimately contributing to better student outcomes. In the next section, we focus specifically in one area many education stakeholders identified as a gap: inclusion and special education.

7.5.3. Inclusive Education

UNESCO Report emphasizes developing pedagogies of solidarity grounded in an education that is inclusive and intercultural. It states that “the right to inclusion, based on each person’s diverse realities, is among the most crucial of all human rights” (UNESCO, 2021). Inclusion and equity are key principles of *Recrea*. However, in the Survey, only 47.5% of teachers, 46.6% of principals, and 55.1% of supervisors agreed or partially agreed that they had enough PD and/or resources to attend to students with special educational needs. Although inclusion is a wider challenge, in this section we focus on students with special needs. Nevertheless, recommendations are expected to build an inclusive environment and have a positive impact on all students, as envisioned by the UNESCO Report.

Policies for inclusion of students with special needs are controlled at the federal level, and the lack of resources is a common challenge across the country (Interview 9, 2021). Hence, states must resort to alternatives to complement this service, and provide additional resources and training in order to assure accessible and continuous support for all students in all schools. In Jalisco, those resources are offered through three institutional services: 152 schools specialized in students with special needs (CAM); 191 specialized units that support mainstream education schools (USAER) and 4 resource centers that provide orientation to families and teachers (CRIE). Together, those services are present in only 2.6% of the schools in Jalisco, and 62% of them are concentrated in elementary education. As a result, most schools do not have specialized professionals nor resources to promote inclusion, and many students have their support discontinued as they move to secondary education.

UNESCO Report states that collaborative work of teachers and specialists, as well as family engagement, are essential to provide students the support they require to learn. In addition, it reinforces the importance of teacher PD and initial education “to include and adequately support students with special needs” (UNESCO, 2021). Accordingly, our recommendation is comprised of two major initiatives: building teacher capacity and promoting CAVs as a space of collaboration for inclusion. By

implementing those recommendations, communities can design interventions to support and eliminate barriers at different levels of the system to create more inclusive classrooms and schools and improve learning for all students.

Recommendation 1: Build capacity for inclusion, focused on special needs students

Through his research in Chile, Castillo (2020) found that educational inclusion requires teachers to have the competencies of working collaboratively and designing and implementing inclusive didactic strategies to build respectful and democratic environments in classrooms. According to Hurtado et al (2019) Mexico incorporated into the initial teacher education courses of diversity and inclusion. However, Flores et al (2017) highlights that those courses prioritize theoretical content over pedagogies, and most internships take place in schools with no inclusive vision. Overall, Hurtado et al (2019) concludes that it is essential to improve existing PD and create concrete guidelines for building more inclusive schools in Latin America.

Since 2019, SEEJ has provided workshops and two discussion guidelines to promote reflection about Inclusion and Universal Design for Learning and is currently producing short informative videos about different special needs and the specific kind of support they require. Those interventions are aligned with best practices for inclusion but are hardly sufficient. Marchesi & Hernández (2019) argue that a key dimension to promote effective inclusive education in Latin America is to incorporate an inclusive perspective within all courses, rather than offering a standalone course in the initial teaching education.

Hence, we recommend the **revision of all stages of teacher professional development to incorporate an inclusive perspective**. While the curriculum of the *Normales* is strictly regulated, there is space for revising their pedagogical practices to guarantee an inclusive perspective in all subjects that addresses and recognizes students with special needs and diverse classrooms. To achieve that, SEEJ will need to assess the

existing initial education courses and orient the professors of the *Normales* on how to attend special educational needs within the context of their courses. Likewise, the current offering of continuous PD on inclusion practices is not sufficient (Survey, 2021) – hence, new programs should be developed, incorporating inclusive perspectives in a contextualized approach, as described in Section 4.2.2. Simultaneously, SEEJ should expand the asynchronous study materials available, creating a permanent library of videos and manuals that can help teachers in identifying special needs, as well as reflecting and planning their interventions accordingly.

Recommendation 2: Use CAVs to develop responsive strategies for inclusion

The most impactful PD programs for special education are the ones organized around the reflection of teachers from the same school or from schools with similar projects (Marchesi & Pérez, 2018). UNESCO Report also suggests the creation of teaching teams for classroom planning and/or spaces for teachers to share ideas and practices on how to better create inclusive classrooms for all whilst attending to specific needs of individual students. Echeita (2019) also states that rather than a goal, inclusive education is an endless and continuous process of development and innovation that is “specific to each educational community”. Accordingly, we recommend SEEJ to **promote discussions about challenges for inclusion in the CAVs**.

CAVs are powerful levers for those discussions because they can engage different school stakeholders in collecting and analyzing evidence to take actions at all levels - student, classroom, school, and system. To integrate those different levels, **we recommend three approaches that are continuous and interconnected: with families, within the CTEs and on the Regional CAVs**. Because the implementation depends on the work of each CAV, SEEJ is responsible for creating guidelines to support these approaches. Additionally, the permanent library of resources (Section 4.3.1) will be an important asset to be used in these spaces.

The first approach is for teachers to talk with students with special needs and their families. Through informative interviews, families can help co-design collaborative interventions and monitor progress. This interaction will benefit both teachers, who will obtain more information about how to assist the student in class, and parents, who will learn strategies that they can reinforce at home. Evidence in Zimbabwe shows that the coordinated work between families and schools was essential to facilitate the work of teachers in meeting all student's needs (Majoko, 2019). The frequency and medium of those interactions may vary, but for those students who need more support we recommend securing at least three meetings per year - one to design the intervention, a second one to monitor progress and make adjustments, and a final one to assess final accomplishments.

The second approach is to regularly dedicate the time of a CTE meeting to discuss challenges of inclusion, in two separate moments. In one allotted time, all professionals working on the same grade analyze data about student learning and development, to reflect upon barriers and supporters, and to collaborate in planning and designing focalized interventions at the classroom level. This is essential because each classroom is unique, and the strategies can be quite different in elementary compared to secondary school. In the second part of the meeting, all members share their findings and proposed practices. By doing so, it is possible to identify shared challenges at the school level and co-create plans for improvement - such as raising needs for teacher PD or implementing a specific program. Echeita (2019) states that educational centers usually know more than what they use, because knowledge, experiences and ideas are locked up in classrooms and are not shared. Therefore, these spaces allow the existing capacity and knowledge to emerge – a valuable resource, especially in those cases where there is no specialized professional in the community.

A third approach is to use the space of Regional CAVs to share practices for inclusion and reflect about shared challenges. This is also an opportunity for CAMs and for schools that have the support of USAER to share knowledge, tools, methodologies,

and practices with other schools that do not. This is in line with Echeita (2019) findings that the most effective strategy to build inclusive environments is to create spaces of collaboration and engage all the different stakeholders within and between schools.

Today Jalisco's teachers are required to adapt the learning resources and lessons' planning to better attend students with special needs, and they recognize the importance of doing so. However, they do not have sufficient support nor the knowledge to do it (Focus Group, 2021) These recommendations aim to build this capacity on teachers and schools, and to provide spaces to create a more inclusive culture where every student has the same opportunities to learn and grow.

7.6. Policy Prioritizations

Having made several recommendations, this section focuses on discussing policy prioritization using the ICE Score Method, a method for prioritization typically used in project management. We adopted the ICE Score Method to evaluate the relative value of each recommendation considering their (I) impact towards bringing *Recrea* closer to UNESCO Report's vision; (C) the confidence the consulting team has that this impact will be achieved; and the (E) ease of implementation, given the context and constraints of the system. This method provides SEEJ with a concrete criteria matrix to base their priorities, while at the same time offering them the flexibility of further amending the table to their understanding and re-prioritizing among the eight recommendations made in this chapter. After compiling each recommendation's score, we added an 'interdependence between recommendations' column, to clearly state that the implementation of a recommendation depends on the effective roll out of another recommendation. This will help SEEJ in planning the most effective order of implementation.³

³ The ICE Matrix Table can be accessed at <https://bit.ly/Chapter7JaliscoMexico>

According to our analysis, ‘organically increase the number of CAVs’ (ICE Score: 560) may not be easy, because of the mindset shift it requires. But it is the recommendation that will most certainly contribute to the desired impact of moving *Recrea* closer to UNESCO Report vision – both because of the increased autonomy of institutions and teachers, and because it provides structure to the development of several other recommendations. Hence, that recommendation should be the top priority of SEEJ.

Between the three recommendations on Teacher Professional Development, the priority should be ‘Increase PD’s relevance and structure through CAVs’ (ICE Score: 240). Although it is dependent on the increase of the number of CAVs, it creates a culture of continuous improvement that enhances relevance for all PD offering, whilst contributing to an increased collaboration within the Teacher Department. As for Inclusion, while we do believe in the importance of ‘building capacity’ through the revision of all teacher PD offering (ICE Score: 60), we recognize the challenges of mobilizing resources and, approaching it from a political perspective (Reimers, 2020), confronting vested interests. Therefore, we recommend that if SEEJ is faced with the choice, it should prioritize taking advantage of the structure of ‘CAVs to develop responsive strategies for inclusion’ (ICE Score: 448) in all levels.

7.7. Conclusion

Recrea’s vision is conceptually aligned with UNESCO’s **Future of Education Report on various dimensions**. Being a recently implemented state project, there are opportunities for strengthening *Recrea*’s existing conceptual alignments through implementation scaffolding necessary to create the desired impact.

This chapter focused on the key opportunities for change – with the recommendations made in section 4 being built within the strategic line of CAVs. CAVs are central to *Recrea*’s vision and align perfectly with UNESCO Report’s. Accordingly, the first recommendation is **strengthening CAVs** through organic expansion, collaboration and digital space for systematizing

knowledge. The second recommendation is **strengthening teacher professional development**, through internship programs for prospective students of *Normales*, a five-step strategy to enhance cohesion and relevance of PD through CAVs, and by recognizing teachers as knowledge producers. Finally, we also recommend **supporting students with special needs**, by revising all stages of teacher professional development to incorporate an inclusive perspective and using CAVs to develop responsive strategies for inclusion.

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Chapter Eight. Nuevo León, Mexico

Engaging Communities, Supporting Educators, and Expanding Learning

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Abstract

This paper recommends adjustments to ongoing education initiatives in Nuevo Leon (NL), Mexico to better align with the principles of UNESCO's recent report *Reimagining Our Futures Together (ROFT): A New Social Contract for Education* (UNESCO, 2021). The NL Ministry of Education has deployed a three-pronged approach to reducing educational lag in the state: (a) improving access to and quality of early childhood care and education (ECCE); (b) expanding the use of socio-emotional learning (SEL); and (c) establishing purposeful assessment systems. This paper first provides an overview of the current state of educational opportunities in NL before describing their current degree of alignment with the ROFT. Lastly, the paper presents policy recommendations for each reform area by leveraging core principles of the ROFT. NL's current education reforms embody the ROFT's vision of inclusive learning experiences for children, by attempting to educate *the whole child and every child* through personalized, holistic supports across different ages. However, NL could improve educational outcomes by fulfilling the ROFT's call to engage caregivers, teachers, and school leaders alike. Policy recommendations for ECCE, SEL, and data-responsive pedagogies seek to establish systems that enable these stakeholders to be engaged as lifelong learners, in and out of traditional school spaces and times.

8.1 Overview of the Education System in Nuevo Leon, Mexico

Overview. Since 1992, the Mexican education system has followed a decentralized governance system that grants autonomy to states over the operation of their education systems (Ornelas, 1998). NL currently enrolls over 1.6 million students, across 7,796 schools in four sub-sectors: Initial, Basic, Upper Secondary, and Higher Education (Morales, 2021). NL boasts outcomes above national averages in areas such as literacy rates, PISA scores, tertiary enrollment, and primary school completion (Monray, 2019). However, the COVID-19 pandemic exacerbated issues in the state's educational landscape, such as shortages of sufficient school infrastructure (Salas, personal communication, Dec. 8th, 2021), low ECCE and upper secondary coverage (Morales, 2021), declining student mental health (Rodríguez-Leonardo & Peña Peralta, 2020), and destabilized home environments due to family violence (Jaramillo, 2020), as well as job loss, food insecurity, and lower access to healthcare (Haimovich et al., 2021).

Access. NL has great variation in educational access. Basic education has achieved near-universal coverage with a near-zero drop-out rate (Secretaría de Educación Pública, 2021), partly due to Mexico's prohibition on grade repetition (Farias, personal communication, Nov. 24th, 2021). However, there is substantially lower enrollment at the upper secondary level at 76.9% (Morales, 2021).⁴ The drop-out rate for upper secondary, at 12.3%, contributes to NL's skill and employment gap in young adults (Morales, 2021). Currently, 37.3% of students who drop out work in the informal sector and another 18.7% are unemployed (Niñez Escencial, 2021).

Although, now that both sublevels of *educación inicial* federally mandated (GOBMX, 2020), only 70.0% and 3.3% of NL

⁴ As of the 2019-2020 school cycle, complete gender parity in school attendance was achieved in NL, but the pandemic has since reduced female enrollment and increased male drop-outs in upper secondary (INEGI, 2020; Morales, 2021; Niñez Esencial, 2021).

families enroll their children in pre-school and *primera infancia*⁵ respectively (Salas, personal communication, Dec. 8th, 2021). This is attributed to cultural norms around home-based childcare, limited information on ECCE services, and financial barriers (Trujillo, personal communication, Dec. 7th, 2021). The coverage of 3-year-olds in the first year of preschool is particularly low, at only 43.6% (Salas, personal communication, Dec. 8th, 2021). Only 76.4% of primary school students in NL finished at least one year of preschool, the second lowest rate in the nation (Secretaría de Educación Pública, 2021). One year into the pandemic, NL families with children aged 0-6 years experienced the highest increase in poverty at 5.5% (Pacto por la Primera Infancia, 2020), making ECCE-related expenses more burdensome for families (Aguirre, personal communication, Nov. 22nd, 2021).

Quality. NL's improvement in average years of learning, increasing from 9.8 years in 2010 to 10.7 years in 2020 (NLM, 2021), has not translated to significant improvements in learning outcomes, as shown by achievement scores on the standardized national assessment PLANEA between 2015 and 2019 (PLANEA, 2020). With 60% of students experiencing difficulty with basic arithmetic and 33% with reading a text for comprehension, NL's upper secondary level has a 68.0% terminal efficiency and 36.0% failure rate (Morales, 2021). State officials believe that NL's growing learning lag⁶, now estimated at 14.3%, stems from poor learning at the primary level (Morales, 2021; Tovar, 2021), widening gaps that are not remediated due to the prohibition of grade repetition (Farias, personal communication, Nov. 24th, 2021). NL's 20-month school closure, in addition to the cancellation of the 2020 national PLANEA assessment, left educators and policymakers without data to respond to growing educational gaps. A recent informal evaluation of 83% of the state's 2nd-4th graders revealed that two in three children cannot comprehend a simple

⁵ Initial education in Mexico is split between *primera infancia* or daycare (0 - 2 years) and preschool (3- 5 years).

⁶ *Learning lag* is defined as “the lack of expected learning in respect to the age and school grade of the learners” (Hevia et al., 2021a).

text and one in five can't add or subtract (Secretaría de Educación de Nuevo León, 2022). Learning loss in Mexico is estimated at 0.34–0.45 SD in reading and 0.62–0.82 SD in mathematics and increased learning poverty⁷ between 15.4%–25.7% in reading and 28.8%–29.8% in numeracy (Hevia et al., 2021b). NL's income-based achievement gap, the third highest in Mexico at 17.6% (Garcia, 2019), is predicted to have worsened during the pandemic (Hevia et al., 2021b).

Student Wellbeing. NL's 18-month lockdown has led to a variety of psychological consequences for teachers and children. There has been an increase in anxiety, depression, substance abuse (Jaramillo, 2020; Lorenzo Ruiz et al., 2020), and home-based violence (El Financiero, 2021). Such stressors compound Mexico's pre-existing rates of work-based stress, the highest worldwide (Labra, 2020), and bullying, estimated at 30% in Nuevo Leon by a recent UNESCO study (Chávez et al., 2020). Additionally, NL students suffer an estimated rate of physical violence over 40% (David, personal communication, Dec. 3rd, 2021; Dominguez, 2017) and an estimated 11% of school-aged youth are involved in criminal activities (David, personal communication, Dec. 3rd, 2021). Research from the Aspen Institute (2018) shows that student socio-emotional wellbeing affects student's attitudes, values, beliefs, motivation, and learning outcomes (Aspen Institute, 2018). Poor socio-emotional health has contributed to NL's growing educational lag (Tovar, 2021).

Capacity. The governance of NL's education system has historically been characterized by high administrative turnover, politicized agendas, and poor system coordination (Silveyra, personal communication, Oct. 26th, 2021). NL's education budget receives 42% of its funding from state resources (Lopez, 2021), estimated at 27,000 MXN (USD 1,297) per pupil annually, just about the national average (Salas, personal communication, Dec. 8th, 2021). However, 93% of this budget is reserved for teacher salaries (Garcia, 2015). Around 75% of teachers perform at a "sufficient" level according to most recent

⁷ *Learning poverty* is defined as the inability to read and understand simple texts by the age of ten (Hevia et al., 2021b).

evaluations (NLM, 2021), yet many struggle with a high student-teacher ratio of 22.4 (nl.gob.mx, 2021). Only 12.34% of teachers in NL report receiving continuous training, and even fewer engage in educational research and innovation (Lopez, personal communication, Oct. 21, 2021). A majority of NL schools historically lack necessary infrastructure and physical accommodations for students with disabilities (NLM 2021). The conditions of school buildings worsened during the pandemic due to poor maintenance (Salas, personal communication, Dec. 8th, 2021).

8.2 Current Education Reforms in Nuevo Leon, Mexico

NL's education secretariat's reform efforts have been shaped by the state's Strategic Plan for Education 2015-2030 (SPE 2030) since its implementation in 2016. SPE 2030's pedagogical and curricular transitions relied heavily upon the *Nuevo Modelo Educativo* (NME) curriculum, the national education reform plan under the Nieto presidency (Estrada, personal communication, Oct. 28th, 2021). However, due to the pandemic and disruption of normal school functions, the release of NME has been delayed (Nolasco, personal communication, Dec. 9th, 2021), which hindered progress towards SPE 2030. Secretary Morales has used the SPE 2030 to base her educational reform strategy, echoing its commitment to universal coverage, high academic proficiency, and the provision of a world-class education.

However, the Morales administration is currently developing its own strategic plan for the education sector, prioritizing efforts to eliminate the growing educational lag that emerges in basic education and progresses throughout a child's educational journey. Such educational lag contributes to poor academic achievement in upper secondary, discouraging students who subsequently fail (36.0%), drop-out (12.3%), or simply never enroll (23.1%), with worrisome consequences for adult employment and civic participation (Flores, 2020). Under a new theory of change (Figure 1), the Morales administration has prioritized three areas for reform in its first years in office that seek to reduce educational lag by supporting students' unique

set of academic and non-academic needs for all children under the age of 18. These three priorities are (a) coverage and quality in ECCE, (b) expanding SEL to all education levels, and (c) the development of purposeful student assessment systems.

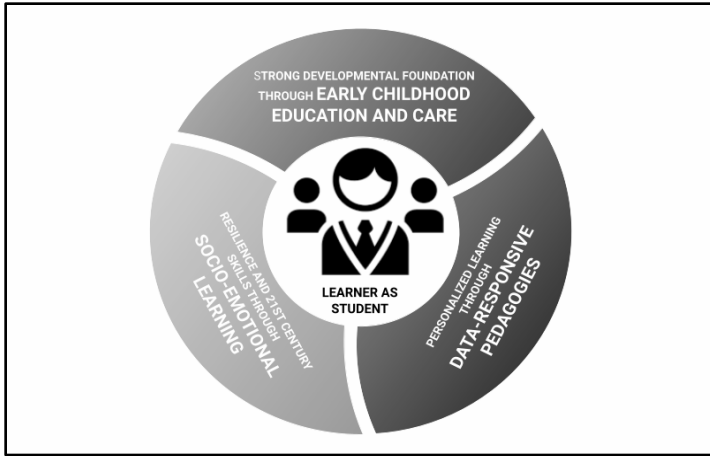


Fig. 8.1 Diagram of the Morales administration’s current approach to *educating the whole child and every child* achieved via initiatives in three priority areas

8.2.1 Addressing Coverage and Quality in ECCE.

Attributing the state’s increasing educational lag to poor socio-emotional and cognitive development in early childhood, NL Governor García pledged to prioritize high-quality ECCE in the state through the campaign “NL is the best place to be born, raised, and educated” (Tovar, 2021). The campaign’s immediate focus is boosting ECCE coverage, specifically for three-year-olds, an age group that saw a 21.5% drop in enrollment during the pandemic (Gutiérrez & Velázquez, 2021). To this aim, NL aspires to expand and rehabilitate the infrastructure of its preschools, costs of which are currently being evaluated (Trujillo, personal communication, Dec. 7th, 2021). Despite historically not providing professional development (PD) for *primera infancia* teachers (Rosales, personal communication, Nov. 22nd, 2022),

NL recently launched a daycare provider and *promotora*⁸ PD series in play-based learning with the LEGO Foundation, bolstering federal home-visiting and daycare programs through a cascade training model (Trujillo, personal communication, Dec. 7th, 2021). Longer-term goals entail standardizing the quality of daycare services by registering an estimated 700 unlicensed⁹ centers and credentialing an estimated 1,000 daycare teachers (Trujillo, personal communication, Dec. 7th, 2021). The Morales administration will soon evaluate the quality of daycare centers for infrastructural, organizational, and staff capacity. Providers that do not meet requirements have 12 months to become credentialed before facing closure or termination.

8.2.2 Expanding the Use of Socio-Emotional Learning. As part of the NME, NL had established the importance of fostering SEL to: (a) support improvement of school readiness, (b) support learning, (c) decrease bullying and violence, (d) foster school belonging, (e) decrease drop-out rates, and (f) improve students' 21st century skills and employability (NLM, 2021). The SEL curriculum has yet to be implemented in NL due to political turnover causing delays in the development of curricular materials (Cardenas et al., 2020), and the federal government's decision to devolve responsibility for funding of SEL to the states (Labra, personal communication, Dec. 15th, 2021). Given the pandemic's exacerbation of the existing stressors that burden students, parents, and teachers alike (Rodriguez-Leonardo & Peralta, 2020), NL has identified SEL as a key curricular priority for K-12 students (Morales, personal communication, Nov. 22, 2021), aiming to embed socio-emotional competencies across academic subjects and as its own

⁸ Locally-hired volunteers that serve as home-visit facilitators and ECCE advocates for federal programs such as Consejo Nacional de Fomento Educativo (CONAFE).

⁹ Unlicensed centers are those that operate without a Recognition of Official Validity of Studies (RVOE) from the Secretariat de Educacion Public, either operating informally or affiliated with one of thirteen federal service providers.

subject domain. Financed by the state and private funding, SEL training targeting all K-12 school officials and teachers will begin in NL in 2022 through AtentaMente, the civil society organization which supported the design of the national NME K-12 SEL curriculum (AtentaMente, 2021).

8.2.3 Establishing Purposeful Assessment Systems. The Morales administration, lacking recent student performance data in the absence of national assessments, has begun diagnosing expected student learning gaps. Firstly, the state has implemented a short-term school-based assessment system using the *Medición Independiente de Aprendizajes* (MIA)¹⁰ methodology, adapted for teachers to administer in schools for second to fourth graders to assess literacy and numeracy competencies (Hevia, personal communication, Nov. 19th, 2021). To address learning gaps, school timetables now reserve one full day a week for ability-based educational interventions. To help teachers with differentiated instruction, officials are in the process of implementing training sessions for *Teaching at the Right Level* (TaRL) (Guevara, personal communication, Dec. 8th, 2021). TaRL is a cost-effective, evidenced-based pedagogical strategy for reinforcing foundational skills through differentiated instruction, in which students are grouped by ability level rather than age (J-PAL, 2019). The state has also launched teacher training on formative assessment practices and begun designing a holistic statewide standardized, summative assessment¹¹ (Sanchez, personal communication, Dec. 10th, 2021).

¹⁰MIA evaluators administer an oral, adaptive assessment of foundational literacy and numeracy skills.

¹¹ Formative and summative assessments are designed to work in tandem to holistically measure levels of learning, socio-emotional skills, habits and expectations, situations at home and school, and educational and social context.

8.3 Alignment of Reforms with the Futures of Education Report

The ROFT report, produced by UNESCO’s International Commission on the Futures of Education, rests on the premise that the “interdependent futures of humanity and planet Earth are at risk,” and immediate action is required to build sustainable futures (UNESCO, 2021, p. 2). The ROFT views education as possessing a “transformative potential” to bring about positive change.

Table 8.1. Five levers for educational change outlined in the ROFT

<i>Pedagogies of Cooperation and Solidarity</i>	Pedagogy should foster “empathy, ethics, compassion and build the capacities of individuals to work together to transform the world” (UNESCO 2021, p. 73), through interdisciplinary, problem-oriented, collaborative learning
<i>Curricula and the Evolving Knowledge Commons</i>	Curriculum should emphasize “ecological, intercultural, and interdisciplinary learning that supports students” to access, produce, critique, and apply knowledge (UNESCO, 2021, p. 90)
<i>Transformative Work of Teachers</i>	Teachers should collaborate, produce knowledge and research, practice autonomy, and participate in public dialogue
<i>Safeguarding and Transforming Schools</i>	Schools should be protected spaces to solve complex challenges and foster inclusivity and collaboration, supported by digital technologies

<i>Education Across Different Times and Spaces</i>	Lifelong learning should be promoted through educational opportunities across all age groups and social spaces
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The ROFT report outlines a critical framework which can be used to accelerate NL's current education system towards a more sustainable and equitable future for all learners. A careful analysis of the Morales administration reforms, guided by SPE 2030, and their alignment with the principles of the ROFT revealed a central focus of ongoing strategic efforts: *educating the whole learner and every learner*, as stipulated under *curricula and the evolving knowledge commons* (UNESCO, 2021). This administration's reform priorities attempt to close foundational learning gaps by building greater educational supports that recognize students as unique, comprehensive beings with both academic and non-academic needs. The reforms echo the ROFT report in their treatment of learners as "complete human beings [with] needs and capacities" of their own (UNESCO, 2021, p. 81).

However, the Morales administration's current efforts to educate the whole learner and every learner, could be bolstered by leveraging the principles stipulated within the ROFT by (a) expanding the scope of who constitutes as a 'learner', beyond that of the under-18-year-old student, to the caregiver, parent, and teacher, both formal and informal; and (b) expanding educational opportunities beyond the traditional school building and timetable (Figure 8.2). NL's current ECCE reforms should further embrace (a) the vital role of the caregiver in fostering a shared vision of the importance of early childhood development, in addition to (b) the wealth of knowledge that could be leveraged by supporting the informal daycare labor force through collaborative, personalized PD. NL's efforts to implement SEL into all schools, equitably and with fidelity, should be supported by collaboration with school leadership and teachers alike. Lastly, the development of assessment systems should expand learning outside of school spaces and schedules and further engage families and communities. By constructing a wider perception of who constitutes a 'learner'

and where and when learning can take place, NL can provide equitable opportunities for lifelong learning by supporting the comprehensive needs of children, caregivers, and the diversifying educator workforce.

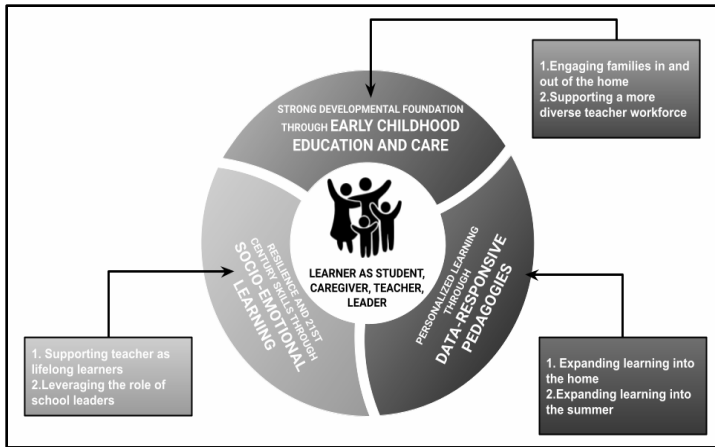


Fig. 8.2 Diagram of proposed approach to *educating the whole learner and every learner* achieved through policy recommendations to current NL education initiatives in three priority areas

8.4 Policy Recommendations

This section outlines recommendations to align ECCE, SEL, and assessment system reforms with the ROFT’s call for holistic learning for all learners, not just students. The below recommendations were evaluated against alternative policy options using the following criteria, as determined by priorities of the Morales administration: ROFT alignment, effectiveness, feasibility, cost, and political acceptability.

Table 8.2. Summary of Policy Recommendations

Addressing Coverage and Quality in ECCE	Expanding the Use of Socio-Emotional Learning	Establishing Purposeful Assessment Systems & Responsive Pedagogy
<p>1.Community-Based Parent Education Program</p> <p>2.Differentiated, Accessible PD for Daycare Providers</p>	<p>1.Accessible, Differentiated PD with Supports for Teacher Practice</p> <p>2.Collaborative, Actionable for Principals</p>	<p>1.Expansion of Short-Term Assessments to Homes</p> <p>2.Two-Tiered Differentiated Summer Learning Programs</p>

8.4.1 Recommendations for Addressing Coverage and Quality in ECCE

ECCE interventions help children reach their full potential by supporting healthy cognitive and socio-emotional development, as well as promoting nurturing caregiver habits. High-quality ECCE interventions are evidenced to have significant positive impacts on long-term outcomes, such as high school graduation and employment (Save the Children, 2014). NL’s current strategy for improving ECCE does not optimally engage a wider range of learners in better understanding and developing a shared responsibility for supporting healthy early childhood development. Not only will greater community engagement support more diverse dialogues about ECCE, but also provide opportunities for educators to challenge longstanding cultural beliefs around the role of the education system in the first years of childhood (Vegas & Santibáñez, 2011). The below recommendations build more systematic channels for

community engagement and more collaborative and sustainable learning systems for the *primera infancia* teacher workforce, recognizing, in the words of the ROFT, that “early childhood education is something we achieve together” (UNESCO, 2021, p. 70).

Recommendation 1: Community-Based Parent Education Program. To address low ECCE enrollment, NL should address current barriers to family participation. Interviews with teachers, parents, and education leaders revealed that low ECCE coverage in NL is largely impacted by NL’s cultural undervaluing of ECCE services, in which nuclear family members are seen as the most appropriate form of childcare for children under 3 years. To better support participation in ECCE, NL should approach caregivers as active participants in early childhood development.

The first year of preschool, currently only covering 44.1% percent of the state’s 3-year-olds, is the first priority for the state’s ECCE interventions.¹² To increase the coverage of 3-year-olds in preschool, caregivers need to first be immersed in the ECCE system to recognize, appreciate, and contribute to its benefits. A statewide parent education program (PEP), targeted at children not enrolled in the first year of preschool, could achieve the dual purposes of engaging caregivers in ECCE while boosting the coverage of ECCE services to 3-year-olds. PEPs can actively build an engaged and informed parenting community via a community-based, group meeting delivery system (Cardenas et al., 2017). NL and other Mexican states have boosted healthy parent practices and early childhood outcomes with PEPs in the past, such as the *Programa de Educación Inicial (PEI)*, under the federal education program *Consejo Nacional de Fomento Educativo (CONAFE)*, that targets rural and impoverished communities, and the nascent *BEBÉS + FUERTES (B+F)* program run by educational consultancy

¹² Federal guidance under previous Minister of Education Aurelio Nuño Mayer allowed for the first year of preschool to be substituted for an additional year in a registered daycare center delivering the *Un Buen Comienzo* curriculum.

group Childhood First. Both programs are cost-effective methods of maximizing caregiver involvement by hosting frequent group sessions in local communities that focus on early literacy, socio-emotional learning, and responsive parenting techniques at no cost to parents. A formal evaluation revealed that one year in CONAFE's PEI program increased nurturing parenting practices by 0.34 SD and increased communication and gross motor skills in participating children by 0.15 SD each at a per pupil cost of 81.08 USD (Cardenas et al., 2017).

Due to its highly specific targeting and uncertain future in Mexico's education landscape, CONAFE will not fulfill NL's current out-of-school coverage gap for 3-year-olds. However, NL can partner with Childhood First to design and implement its own PEP that mimics CONAFE's cost-effective, place-based approach. Unlike CONAFE's PEI model, *B+F* reduces expenditures, to an estimated 43 USD per pupil, by negotiating for the free usage of municipal public buildings for group meetings, which occur after working hours¹³ (Ramirez, personal communication, Dec. 1st, 2021). This not only reduces barriers to participation for working caregivers, but also frees up funding to employ professional facilitators, usually licensed preschool teachers trained in the *Un Buen Comienzo* initial education curriculum of NME (Ramirez, personal communication, Dec. 1st, 2021). The use of this curriculum, with its embedded socio-emotional competencies, in the *B+F* model has proven to promote mental health benefits for ECCE teachers (Silveyra, personal communication, Oct. 26th, 2021), and could similarly benefit caregivers.

Such programming would achieve NL's goals of expanding the access of high-quality ECCE services that support healthy cognitive development and school readiness for all children. PEP delivery via group meetings is less costly than home-visits, increases program capacity to reach more families, and allows for the facilitation of a parental learning community, as seen in

¹³ The *B+F* model operates on an hourly rotational schedule, where multiple groups of families attend hour-long sessions according to a predetermined timetable, maximizing coverage of families by minimizing travel time for facilitators.

CONAFE's PEI (Cardenas et al, 2017), that supports the ROFT vision of building a shared responsibility for early childhood development. The active involvement of caregivers raises awareness and support for preschool and other early childhood interventions. For example, 100% of families who participated in the *B+F* pilot enrolled their children in preschool after the program (Ramirez, personal communication, Dec. 1st, 2021). This program would engage caregivers, increase enrollment in ECCE, and expand learning to homes by promoting nurturing parenting practices, in alignment with the ROFT's call for expanding the times and spaces in which learning takes place.

Recommendation 2: Differentiated, Accessible PD for Daycare Providers. NL seeks to standardize initial education services to improve the provision of equitable, high-quality ECCE in the state. Standards for *primera infancia* services have recently been set to 1) regulate unregistered childcare centers and 2) credential daycare providers using a competency framework (Trujillo, personal communication, Dec. 7th, 2021). Current collaborations with higher education institutions support the implementation of these competencies into pre-existing *puericultura*¹⁴ programs (Trujillo, personal communication, Dec. 7th, 2021), but do not support the numerous unlicensed daycare providers. The number of unlicensed providers is currently being assessed, with estimates over 1,000 (Trujillo, personal communication, Dec. 7th, 2021). The Inter-American Development Bank's recent evaluation of Mexican daycare services as "medium to low process quality" (Rubio-Codina, 2021) suggests that many providers may lack proficiency in required competencies and risk termination¹⁵.

To retain as many providers as possible, whose valuable experiences are critical to the current ECCE workforce, individual competency gaps should be evaluated and adequately

¹⁴ *Puericultura* is a higher education degree program typical of licensed providers in registered daycare centers.

¹⁵ ECCE providers who do not meet competencies will be given 12 months to receive a *puericultura* degree, but it is expected many providers will not have the time or money to do so (Trujillo, personal communication, Dec. 7th, 2021).

addressed through personalized PD that can be delivered equitably and feasibly. Differentiated, scalable PD systems have proven possible in Central American countries, such as Honduras, through TPD@Scale, a content-focused PD program delivered via online and face-to-face modalities that effectively enable participation of large numbers of learners without necessitating physical co-location (TPD@Scale, Coalition 2021). The use of personal devices allows the program to be scalable for a large and diffuse teacher workforce, while allowing for personalized learning that addresses different teachers' unique needs (TPD@Scale, 2021). On-site and online teacher collaboration, classroom application, and reflection are central to the TPD@Scale, reducing the isolation of the teacher profession in alignment with ROFT principles.

The TPD@Scale model could be implemented in NL to target professional deficiencies for *primera infancia* providers, but would require the development of an online curriculum that addresses the competencies outlined by the state. Recently appointed regional 'Zone Leads' from LEGO's PD program could be leveraged as "coaches" in the TPD@Scale model, inventorying regional PD gaps, enrolling providers into relevant online courses, and formulating professional learning communities both online and on-site. By empowering teachers as competent local facilitators, TPD@Scale is more cost-effective than traditional teacher training models (Lim et al., 2020). This initiative echoes ROFT's call for recognizing the wealth of knowledge that exists in various educational and professional experiences, while also instituting collaborative, lifelong learning into the teaching profession.

8.4.2 Recommendations for Expanding the Use of Socio-Emotional Learning

High quality SEL programs promote improved academic outcomes, mental health, relationships, responsible decision making, and sustained lifelong learning (CASEL 2021). These key SEL outcomes do not come from curricula alone, but from teachers' impact on student socio-emotional skills, which is ten times more predictive of long-term success than test scores

(Aspen Institute, 2018). AtentaMente’s SEL training program in NL has drastically improved teacher and school leader socio-emotional competencies, decreasing burnout and improving mental wellbeing (Silveyra, personal communication, Oct. 26th, 2021). Encouraged by such positive results, in January 2022, NL will begin two four-month AtentaMente trainings: one targeting all staff at all education levels and another specifically targeting school leaders. However, in line with the Morales administration’s strategy, all trainings are voluntary and, therefore, expected to reach *at most* 70% of school leaders and teachers statewide (Labra, personal communication, Dec. 15th, 2021). The voluntary nature of SEL implementation in NL disadvantages the 30% of school leaders and teachers, and by extension their students, who will not benefit from more holistic curricula and pedagogies that balance socio-emotional and academic priorities. To equitably provide opportunities “to foster empathy, ethics, compassion and build the capacities of individuals to work together to transform the world” (UNESCO, 2021, p. 13), NL should leverage the roles of teachers and school leaders by maximizing use of accessible, collaborative learning experiences.

Recommendation 1: Accessible, Differentiated PD with Supports for Teacher Practice. To ensure equitable implementation of SEL, NL would benefit from a cost-effective, adaptable model for teacher PD that reaches 100% of school leaders and teachers while accounting for heterogeneity in internet access, a key barrier in NL (Labra, personal communication, Dec. 15th, 2021). TPD@Scale, as referenced above, offers a cost-effective adapted cascade model that expands access to high-quality, collaborative teacher training, while mitigating many of the challenges of working with a highly diverse workforce. Given that not all school leaders and teachers can access online platforms, TPD@Scale’s hybrid delivery of online and face-to-face training could extend the reach of AtentaMente’s training. TPD@Scale’s dual delivery methodology would allow for SEL training to be differentiated according to education level, scaling PD tailored to the teacher’s unique needs based on their students’ age, ability level, and expected competencies. The TPD@Scale design, which centers the role of the “master trainer” or facilitator, could standardize

AtentaMente's pre-existing, less structured, cascade training model.¹⁶

Even with equitable distribution of SEL PD across the state via TPD@Scale, AtentaMente training lacks mechanisms for continuously supporting teachers in classroom implementation. As the ROFT outlines, continuous coaching mechanisms should be embedded into schools and linked to teachers' daily experiences to support sustainable implementation of new practices. This would help integrate SEL into teachers' daily practice, especially important given research indicating SEL skills are best imparted through consistent teacher modeling, rather than one-off content-based lessons (Dominguez, 2017). To support cost-effective continuous teacher PD in SEL, NL could implement the World Bank's (WB) school-based, in-service teacher training program, Coach. Coach offers operational support and open-source tools to implement ongoing, tailored, practical, supportive PD programs in schools (WB, 2021). Coach's focus on teacher practice complements TPD@Scale's emphasis on content, ensuring that teachers 1) equitably access adaptable curricula and 2) receive in-school pedagogical support for implementing SEL.

Coach has designed evidenced-based, in-service teacher PD models based on a review of 139 teacher PD programs worldwide, and has begun implementation in multiple middle- and low-income countries (WB, 2021). Using Coach's range of modalities alongside additional supports from the TPD@Scale model, NL could design a multi-pronged PD model that ingrains SEL practices into classrooms equitably via 1) a school-based PD approach with 2) peer-learning support structures and 3) offline modules for continuous in-service content training (Table 8.3). This multi-pronged approach advances NL's and ROFT's vision for a holistic and inclusive education that 'educates the whole child' by similarly designing teacher supports on "platforms for cooperation, care, and change"

¹⁶ An evaluation by the Centro de Estudios Educativos y Sociales showed that of 2,395 trained preschool directors, 100% shared their learnings with other teachers, and 86% shared socio-emotional wellbeing strategies directly with students (Labra, 2020).

(UNESCO, 2021, p.110).

Table 8.3. Components for Proposed PD Model for In-School SEL Training

School-Based PD (Coach)	Peer-Learning Support (Coach)	Offline Modules for Continuous Learning (TPD@Scale)
<ul style="list-style-type: none"> ● Grade-based teacher groups can serve as an in-house community of practice ● Facilitated by teachers (WB, 2021) and supported by schools leaders¹⁷ 	<ul style="list-style-type: none"> ● Leverage teacher-pairs to work towards collective goals ● Partnerships for planning lessons, sharing ideas, and critiques 	<ul style="list-style-type: none"> ● Continuous in-service learning to prevent dilution of training quality¹⁸ ● Refresher sessions to develop content knowledge throughout the year

Recommendation 2: Collaborative, Actionable PD for

¹⁷Atentamente’s previous engagement with the school leaders in programming has positively impacted implementation (Labra, personal communication, Dec. 15th, 2021). Recent literature has evidenced school leadership’s significant effect on the quality of teaching and learning in the classroom (Leithwood et al. 2020).

¹⁸Collaborating with AtentaMente to provide schools with pre-downloaded content for offline use would be a cost-effective solution to heterogeneous internet access given that all the videos are already available for download.

Principals. SEL requires “fostering a warm, nurturing, and motivating school climate” (CASEL, 2021). School leaders are a crucial bridge in developing this positive atmosphere (Leithwood et al. 2020; Deenmamode, 2012; Bektas & Turan, 2013; Carpenter, 2015). Although AtentaMente offers a 40-hour leadership module with some group support, school leaders would benefit from more sustainable and actionable learning experiences that support principals in building school cultures conducive to SEL. NL could further promote SEL by better supporting principals in developing their schools into “platforms for cooperation, care, and change” (UNESCO, 2021, p. 110).

While the growth of school leadership training programs in Latin America has been slow, effective models point to collaborative learning communities and actionable school-based projects as key elements for sustainable school change (Bustillo & Porres, 2018). Argentina’s Leadership & Educational Innovation Program (PLIE) used such tools to engage over 2,000 school leaders annually in skill development for school management, teacher support, and community-building (Alonso, 2018). PLIE uses the evidence-based “quality circle” method¹⁹ to group principals into small, supportive, collaborative learning communities (Bustillo & Porres, 2018). These communities subsequently serve as accountability and thought partnerships for the training’s pivotal School Innovation Project (PIE), in which participants design, execute, and evaluate needed reforms in their schools (Bustillo & Porres, 2018), some of which have focused on school culture and SEL (Alonso, 2018). Through a collaborative PD model that embeds active learning experiences in real-life problem-solving, PLIE empowers principals to innovate and effect positive change by offering opportunities for group-based, hands-on learning.

AtentaMente’s leadership PD could be enhanced with the above elements to support principals more holistically in efforts to

¹⁹“In the teaching realm, [quality circles] refer to groups of teachers who meet regularly to identify on-the-job problems and solve them jointly, share personal experience and insights on teaching practices” (Bustillo & Porres, 2018).

foster more positive school climates. Building off of the pre-existing school-pairing program, *Aprende entre Escuelas* (Cantú, 2021), PD for school leaders could include “quality circle” partnerships which engage principals in regular virtual meetings to collaboratively review SEL course materials, as well as a platform for sharing best practices for fostering school climate. AtentaMente’s leadership PD could support interested principals in implementing school improvement projects, similar to those in PLIE, focused on building positive school climates and embedding SEL competencies into the school’s daily routines. This would empower principals to leverage their unique position as school leaders to innovate in support of student well-being. By leveraging AtentaMente’s pre-existing PD curriculum, the adoption of peer-learning and school improvement projects will support principals to build their school as an “inclusive and collaborative learning environment... that welcomes learners in their difference and diversity” (UNESCO, 2021, p. 110). By engaging school leaders as lifelong learners with needs for collaboration and relevant, actionable learning, NL can progress towards “reinventing the school as a learning organization” (UNESCO, 2021, p. 115).

8.4.3 Recommendations for Establishing Purposeful Assessment and Responsive Pedagogy

Our overview illuminated significant gaps in NL students’ foundational academic skills based on pre-pandemic assessment data, along with evidence from more recent, informal assessments, which show that subsequent school closures significantly increased learning loss, inequity, and learning poverty (Hevia et al., 2021b; Secretaría de Educación de Nuevo León, 2022). Foundational literacy skills serve as “a gateway for learning... and conversely, an inability to read slams that gate shut” (WB, 2019, p. 5). Similarly, numeracy plays a key role in determining “an individual’s life success” and mitigating “substantial costs to society” (Ansari, 2012, p. 4). The skills children develop in the early years of schooling are foundational

for higher-level learning²⁰ (Ansari, 2012). Thus, evidence-based interventions in primary school can promote upper secondary school coverage and achievement, particularly in the Mexican context where the leading cause of upper secondary drop-out is academic struggles (Bentaouet Kattan et al., 2015). To address these pressing issues, it is essential that assessment systems are implemented and accompanied by “well-defined ways to inform future instruction based on assessment results” (WB, 2019, p. 23), or ‘data-responsive pedagogy.’ With a holistic assessment system currently being implemented, the Morales administration needs to ensure that such assessments (a) reach all students and (b) support the use of student data to inform pedagogy beyond the traditional school building and timetable. The following recommendations work toward these goals, fulfilling the ROFT vision to support students’ unique needs and engage families and teachers to continually improve as caregivers and educators.

Recommendation 1: Expand Short-Term Assessments to Homes. Given the early success, wide coverage, and low cost of this administration’s in-school use of the MIA methodology, an oral assessment of students’ basic skills (Guevara, personal communication, Dec. 8th, 2021), this effort should be sustained. However, MIA’s in-school delivery excludes the evaluation of an estimated 17% of students, who are chronically absent or out-of-school (Sanchez, personal communication, Dec. 10th, 2021). Home-based assessment data, which has been successfully collected and analyzed via MIA for at least 16,782 Mexican children and adolescents in other states (MIA, 2020), can guide state strategy for designing and implementing learning supports for students upon their return to school. Additionally, family engagement is missing from MIA’s purely school-based model. Evidence shows that informing parents about their child’s academic performance increases parental engagement and improves learning outcomes (Friedlander, 2020). Therefore, by investing in a targeted, home-based MIA assessment program, NL may motivate caregivers to reintegrate children into the

²⁰ A phenomenon called the ‘Matthew Effect’, referring to the evidence-based “cumulative effect of early, foundational skills on later outcomes” (Ansari, 2012, 4).

school system and engage with their learning.

To avoid risks of burnout and pushback from the teachers' unions by extending teachers past their contractual obligations (Guevara, personal communication, Dec. 8th, 2021), NL could contract *promotoras*, similar to the CONAFE PEI model, to be trained in the pre-existing framework for home-based MIA assessments to reach students who are least likely to be assessed within schools. *Promotoras* have a proven history of establishing trusting relationships with families (Arriagada et al., 2018), and offer a cost-effective strategy for implementing home-based interventions (Cardenas et al., 2017). Establishing a home-based assessment system echoes ROFT's vision for education systems that connect home and school environments and recognize the need to empower caregivers with knowledge of their child's education.

Recommendation 2: Two-Tiered Differentiated Summer Learning Programs. Given extended school closures, it is imperative to support students in regaining skills, confidence, and engagement by expanding learning time throughout the year by providing safe, supportive, academically rigorous, and fun summer learning environments which, “will be essential to reduce learning loss and prevent school dropouts” (Hevia et al., 2021a, p. 209).

Home-based Literacy Programming. NL, constrained by teacher capacity and reduced in-person learning time, could use summer holidays to expand opportunities to target identified literacy gaps through an adapted version of the home-based literacy program, READS. In this program, teachers deliver lessons on reading comprehension at the end of the school year, match students with books based on reading level and interests, give children reading comprehension worksheets, and contact families with regular program reminders. Compared to teacher-based lessons, home-based programs require significantly fewer resources²¹, including minimal teacher training and no additional

²¹ In the US context, READS costs 250-480 USD per student (Gill, 2018). However, given cost of living ratios between Mexico and the US, costs could be up to 65% lower in the Mexican context (“Mexico vs. US

staffing (Gill, 2018). The READS program has a strong evidence base, as shown by a randomized control trial in which participating students from high-poverty schools gained about 1.5 months of reading skills (Gill, 2018). Although primarily tested in the US, the READS model's flexibility allows the program to be adapted to match the context and needs of NL, as evidenced by the 0.12 SDs greater gains for teacher-adapted READS programs (Kim, 2017). Family engagement is a cornerstone of this approach, and bringing education into the home, outside of the traditional school year, promotes ROFT's vision of education across different times and spaces.

Targeted TaRL Camps. In addition to the TaRL pedagogy that is currently being implemented in schools during the academic year, educational summer camps using the same methodology, in addition to play-based activities, could target literacy and numeracy gaps for as many low-performing students as possible²² within funding and capacity constraints. Mainly designed for primary school, TaRL targets a critical age for promoting foundational skills and employs interactive, hands-on, and engaging pedagogy involving games, problem-solving, and collaboration ("Classroom Methodology," 2021). Learning camps were an especially impactful method of TaRL instruction; one randomized trial in India, in which children attended camps for forty days, doubled the number of students able to read a short text (Banerjee et al., 2016; J-PAL, 2019). Similar camps have been successfully implemented and well-received by families in other regions of Mexico, and have also shown statistically significant literacy and math improvements in both pilot and larger-scale trials (Hevia et al., 2021a). To reduce costs and engage more diverse actors in education opportunities, camps could be facilitated by trained *promotoras*, local universities and their student-teachers, or civil society organizations with MIA guidance. TaRL learning camps are an evidence-based strategy to keep students engaged with academics throughout

Comparison," 2021). Additionally, modifications such as donated books rather than newly purchased books can further cut costs.

²² Given capacity limitations during this time of transition, an implementation in 2023 would best match administrative capabilities.

the summer, while aligning with ROFT's vision to partner with individuals from diverse community organizations and universities, who can grow as educators and collaboratively make a difference in the lives of NL's children.

8.5 Conclusion

Current educational reforms in NL seek to educate every learner and the whole learner, mirroring ROFT's call for building holistic, inclusive learning experiences for all children. However, current reforms could benefit from an even more expansive concept of when and where learning can occur and who constitutes a learner, by leveraging crucial stakeholders in the pursuit of better educational outcomes for all students. By pursuing the above recommendations to better engage families, teachers, promotoras, and school leaders both in and out of traditional school spaces and times, NL will both better achieve societal goals of closing learning gaps and lead Mexico in building a more cooperative, diverse, and holistic future for education.

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Chapter Nine. Mongolia

Rooting Reform Implementation in Cultures of Collaboration & Accountability

Uyanga Ayurzana, Daniel Nissimyan, Julia Rose and Xue Ling Tan

Abstract

The recent UNESCO report, *Reimagining Our Futures Together: A New Social Contract for Education*, articulates attributes of sustainable systems to assist countries in developing internal competencies and capacities to ensure that quality educational opportunities are maintained for all citizens across the lifespan. Mongolia's new administration is committed to education policy and implementation continuity. However, Mongolia's ambitious long-term reform objectives lack specificity, causing difficulties in policy implementation, progress monitoring, and accountability. This paper reviews Mongolia's major general education reform, in relation to the UNESCO report and offers policy recommendations across stakeholder levels— student, teacher, school leadership, and system governance.

9.1 Introduction

Over the past 30 years, Mongolia has repeatedly demonstrated its ability to navigate and adapt to seismic shifts. The transition from collective socialism to a multi-party system in the early 1990s reshaped Mongolia's economy, tripling its GDP per capita since 1991. Mongolia's mineral wealth has enabled growth and progress in areas such as health and education (World Bank, 2018). However, the country's economy continues to be highly dependent and responsive to external macroeconomics

movements, which creates instability and is unsustainable. To further complicate matters, Mongolia is one of the world's least densely populated countries with a diverse population comprised of urban city dwellers and pastoral herder communities. These factors, in addition to urban migration trends and a ballooning child population, bring forth opportunities and challenges for the Mongolian government as it relates to education provision (World Bank, 2020).

During this period of growth, fifteen Prime Ministers served the country with an average tenure of under 1.8 years. These frequent disruptions in state governance and local management create instability within sector coalitions and ruling parties, often delaying education reform efforts (World Bank, 2018). However, in January 2021 the new government publicly emphasized the importance of policy continuity—a meaningful first step in creating a shared hope.

This paper aims to address the question of how to increase alignment and improve coherence throughout the comprising parts of an education system, with a focus on primary and secondary schools. The initial section of this paper provides a brief overview of the General Education Law, which is currently under review and being reformed to align with Vision 2050, Mongolia's long-term development plan. Then, the Mongolian education system will be discussed, regarding the progress made towards reform goals while also highlighting areas of alignment with the UNESCO report. After presenting information gathered from the literature review, policy recommendations will be discussed and compared against a pre-determined set of criteria. The concluding section will suggest a final recommendation for the Government of Mongolia (GoM) to prioritize to achieve greater alignment with the UNESCO report and to improve the quality of education in Mongolia.

The methodology included a review of available publications and government documents provided by the Ministry of Education and Science (MoES) and associated agencies. Using the Harvard library system, database searches were conducted to gather, analyze, and synthesize existing research pertaining to targeted recommendation topics. The graduate student

consultant team also conducted 17 client and stakeholder interviews, facilitated two focus groups with rural and urban teachers, and conducted a teacher survey (n=186) from schools across the country, representing urban and rural populations.

9.2 Mongolia's General Education Reform Overview

9.2.1 Long-Term Development Plans

In May 2020, the Mongolian parliament passed a long-term development policy, Vision 2050, which was intentionally developed to align with the Sustainable Development Goals 2030. The overarching aim of this system-wide reform is “Human Development”. The initial reform phase is from 2021-2030 and three mid-term reform policy priorities have been set, to 1) enhance quality and relevance of the education system, 2) increase equal access and inclusiveness in the services and 3) improve the efficiency of education governance, management, and administration (GPE, 2020).

9.2.2 Legislative Reform

The Mongolian parliament is amid a comprehensive legislative education reform, aiming to consolidate and clarify Mongolia's stance and policy actions moving forward. This legislative reform follows years of inconsistencies and disruptions, including 26 amendments to the current Education Laws, frequent updating of the national curriculum, and the publishing of new mandatory textbooks every 18 months, all of which threaten the quality of Mongolia's education system. Mongolia's technical complexities and political forces constantly pull the education system out of alignment (World Bank, 2018).

In June 2021, reformed education laws were proposed and made publicly available for comment.²³ The feedback provided by stakeholders was incorporated and the laws are currently undergoing final review at the parliament session. The proposed General Education law includes specific principles that

²³ 65,845 users accessed the content; 24,299 users posted comments; 5,632 teachers participated in online discussions (MoES, 2021).

Mongolia's education system must embody to reach its long-term development goals— principles such as sustainable and continuous; equal; accessible; life-long learning; appointment based on merit; and nation-wide professional hierarchy. The document also discussed the reasoning behind the proposed principles, including structural and geographical difficulties, institutional and professional complexities, and concerns pertaining to equity and inclusion (MoES, 2021). The areas of concern were consistent with findings from official government documents, internal and external datasets, and with the information collected from a teacher survey, focus groups, and interviews. The principles support the long-term education reform policy, Vision 2050, and align well with the UNESCO report's ideas.

9.2.3 Reform Funding

With the help of international organizations, Mongolia plans to execute 15 strategic reform objectives that entail 254 activities within 47 reform programs; the projected mid-term reform costs for 2021-2025 are 16,405.8 billion MNT. Mongolia's current financial capacity is insufficient; current funding from the government and development organizations covers approximately 60% of reform costs (GPE, 2020).

9.3 Current Education System: Reform Status & Alignment with the UNESCO Report

This section discusses Mongolia's current general education system and reform progress, providing a broad overview of areas of alignment, or lack thereof, in relation to the UNESCO report.

The GoM has been focused on educational reform, in hopes of cultivating a diverse and flexible workforce to ensure the country's future. In Mongolia, the right to general education is present within the laws and evident in high enrollment and

literacy rates²⁴. However, the goal is no longer education for all but quality education for the entire life cycle (UNESCO, 2021).

9.3.1 Technological Ecosystem

In this modern era, enrollment rates no longer imply access to quality education. The UNESCO report discusses expanding the understanding of the right to education to include rights to connectivity, to data, and to quality information. The report also emphasizes that systems must consciously and intentionally plan for the digital age as it relates to their specific context, acknowledging the importance of digital competency, data management, and access to information.

For Mongolia to successfully transition its education system into a comprehensive data-driven digital system, the country must first address the foundational barriers— funding, reliable widespread network connectivity, access to digital hardware and software, and cultivating a data-driven mindset at each stakeholder level. There has been significant progress within the areas of funding, connectivity, and access; however, making meaningful use of technology and data at the local and school levels continues to be a challenge.

9.3.1.1 Connectivity and Reliability Progress

Mongolia has made significant progress in connectivity and network reliability in supplying internet and hardware to schools. Internet accessibility is the poorest in remote areas hosting nomadic communities. Currently, all 341 public schools in soums²⁵, all 134 public schools in aimags' capitals, and all 207 urban public schools have access to optic cables and internet. However, 50 schools at the bag level do not have optic cables and are provided with intermittent access to the internet via large

²⁴ Literacy rates (15+years): 98.6% (female); 98.2% (male), UIS 2018.

²⁵ Soums are rural districts; aimags are urban districts; and bags are the sub-level in soums, similarly to a subdivision or neighbor.

antennas utilizing VSAT²⁶ (Information Technology and Statistics Department, personal communication (p.c.), November 10, 2021).

9.3.1.2 Usage Disparities

In 2013, Mongolia formally introduced its EMIS²⁷ to public general education schools to store educational data. Multiple sectorial assessments have highlighted the lack of Mongolia's EMIS system maintenance and utilization as an impairment (UNICEF, 2020; World Bank, 2019). Recently, EMIS capabilities have expanded to include data management, a news and information portal, a scholarship portal, a parent portal, a content hub with a textbook mobile application, and budgeting software. Despite EMIS growth in functionality and stakeholder relevance, there is minimal traffic to the site, excluding teachers who are mandated to input student data. The MoES is actively increasing the relevancy of its EMIS by introducing new information relevant to stakeholders. For example, parents can see their student's progress, class schedule, sick alerts and meal plans in hopes to increase EMIS use (ITSD, p.c., November 10, 2021).

9.3.1.3 Political Support

In 2020, the MoES took steps to increase monitoring, analyzing, and oversight data by establishing an Information Technology and Statistics Department (ITSD) within the MoES. In the newly proposed education law, the MoES stated that the EMIS is the fulcrum of evidence-based policy formulation, declaring the development and use of the EMIS a national priority to

²⁶ A very small aperture terminal (VSAT) is a small earth station used to transmit/receive signals over a satellite communication network.

²⁷ EMIS is Mongolia's education management information system developed to "monitor, analyze, and support planning and decision-making in the education sector by creating an integrated database" (GoM, 2021)

improve learning and social outcomes for teachers and students. Additionally, in February 2021, Prime Minister L. Oyun-Erdene highlighted the urgency to provide online access to all national services and advocated for investment in education and cooperation (Munkhzul, 2021). However, there continues to be no comprehensive EMIS strategic plan, nor is it defined in the current ICT plan²⁸ (UNICEF, 2020).

9.3.2 Pedagogies of Solidarity & Knowledge Commons

Pedagogy constitutes a broad range of elements, and instruction is only one component of an interrelated set of curricula, knowledge commons, and assessment strategies that are used in the service of learning.

9.3.2.1 Assessment

One of the areas crucial for long-term sustainable development, and highlighted throughout the UNESCO report, is assessment. Mongolia has instated policies around assessment procedures, such as no formal grading of students in grades first to third. However, implementation is not consistent across regions. The lack of standardized assessment procedures and data management processes impedes reform progress domains and sub-sectors (World Bank, 2020); this also makes it difficult to understand the impact of the implemented pedagogy and curriculum. Mongolia plans to participate in PISA for the first time in 2022. Participating in international forums will help increase the relevancy of monitoring systems in Mongolia, and support accountability and information transparency norms. However, regardless of the 2022 PISA results, Mongolia should continue to make strides in standardizing and systematizing the assessment of primary and secondary school student learning in the meantime.

²⁸ As of January 2022, Mongolia publicly announced a partnership with the Global Education Partnership to address quality assessment system creation and implementation.

9.3.2.2 Curriculum and Knowledge Commons

The UNESCO report emphasizes curricular priorities such as climate change education, scientific inquiry, social-emotional learning, digital literacy, and human rights. Mongolia's reform documents broadly discuss curriculum content relating to strengthening ICT and inquiry-learning skills, and the importance of studying Mongolian history and culture to develop a strong national identity. Two important curriculum areas not highlighted in the reform yet emphasized extensively within the UNESCO report are ecological curricula and broader literacies.

Mongolia is considered one of the most polluted countries in the world. Concepts such as mining, air pollution, and protective measures are relevant to students' quality of life and can easily be integrated into the national curriculum. The GoM is partnering with multiple public and private organizations to address this problem; however, there continues to be a lack of educational resources and programming, hindering implementation

Additionally, Mongolia has consistently reported high basic literacy rates across both males and females (UIS, 2019). However, there are no reform programs or activities aimed to develop more complex literacy skills – such as extrapolation and evaluation, across different literacies domains such as digital and civic literacy. The UNESCO report stresses the importance of these types of literacies as being necessary to participate civically and economically within society.

9.3.2.3 Pedagogy Practices

Vision 2050 and the UNESCO report encourage teacher and specialist collaboration. The MoES has initiated collaboration with psychologists to create inclusive environments where students' SEL needs are addressed to improve learning (UNESCO, 2021). However, Vision 2050 does not mention pedagogical approaches, such as to foster deeper learning

through collaborative learning and cooperation or teaching students to unlearn bias, prejudice, and divisiveness.

9.3.3 Teachers, Key Community Figures

The UNESCO report states that teachers “are the most significant factor in educational quality;” emphasizing that teachers are key public figures who have the power to transform educational environments, practices, and policies. Vision 2050, in alignment with the UNESCO report, aims to improve teachers’ working conditions (e.g., reduce large class sizes) and their societal value, in the effort to attract and retain talented teachers. Issues pertaining to the quality and quantity of teachers and leadership at the school and local levels are not explicitly addressed; systemization of the teacher development life cycle is crucial to achieving short-and long-term reform objectives.

9.3.3.1 Teacher Quantity

Mongolia’s population projections estimate a doubling of the student population over the next four years²⁹ while enrollment in teacher preparatory programs is steadily decreasing (GPE, 2020). The Mongolian National University of Education (MNUE) enrollment rates have been decreasing annually for the last three years and only achieved 57% of its target enrollment rate for the 2021-2022 school year, despite education degree programs having the lowest admission criteria as compared to all other degree programs across the country (MNUE, p.c., Nov 28, 2021). The decrease in interest in the teaching profession may be due to low social standing or salary; further analysis of this situation is crucial for a sustainable teacher workforce (Babo, 2019).

9.3.3.2 Teacher Quality

²⁹ Primary school populations are projected to rise by 18% and secondary by 71% by 2030, resulting in a demand of 31,284 new teachers at primary and secondary schools (GPE, 2020) – a 92% increase to the current teacher population.

The measures to monitor teachers' quality are limited as there is a lack of formal professional competencies, teacher accreditation standards, and minimal student achievement data to analyze. It was reported that more than 70% of teacher preparatory institutions are currently not accredited, resulting in a large variance in the quality of teacher graduates (MNUE, 2021). Teacher attrition and retention rates were not found in the data documents provided by the MoES or provided when asked. Therefore, information flows and monitoring of the teacher labor market could not be properly analyzed.

To understand teacher attrition and retention, the authors surveyed rural and urban teachers. Of the responses, 69.3% work more than forty hours per week, and 44.6% responded they work more than 50 hours per week. Potential reasons for the long work hours are the current hybrid learning model, large class sizes³⁰, and/or time-consuming and repetitive daily documentation duties for teachers. These findings are consistent with the information retrieved from teacher focus groups, individual interviews, and shared government documents.

9.3.3.3 School Leadership

Educational leaders at the local and public-school levels demonstrate varying professional and leadership capacities, and are rarely appointed based on merit (MIER, 2019). Additionally, more than 50% of school principals are appointed by the Governor and are usually shuffled during election periods (MoES, p.c., Dec 1, 2021). Principal and teacher interviews revealed a lack of appropriate human resource and management capabilities at the local level, often being asked to complete tasks outside of their job description³¹. This decreased professional capacity is the result of a system that lacks unified policies and

³⁰ The average classroom size is 29.6 students and increases to 53 students in the capital city (MoES, 2021). Capital classrooms are used for three “classroom shifts” each day to cope with acute urban migration.

³¹ During an interview with a school principal, when asked about her duties, she mentioned that sometimes the local governor's office will ask her “to count sheep in the rural part of town”.

structures to prepare, recruit, and appoint leaders of educational institutions (UNESCO, 2020).

The current public system does not provide principals with sufficient management or professional training to appropriately manage the complexities of a dynamic 21st century learning environment. When interviewed, a school principal of four years recalled that she had “never received any sort of leadership training”. Furthermore, the Mongolian Institute of Education Research (MIER) (2019) found that less than 10% of principals attended professional development trainings in the previous three years.

To properly address the misalignment between reform plans and the UNESCO report with what is currently practiced in Mongolia requires collaboration and detailed pipeline development plans to generate sufficiently qualified and motivated teachers, standardizing teacher pre-service and in-service training, and tracking reliable indicators of teacher effectiveness.

9.3.4 Public Character of Education

The UNESCO report does not explicitly discuss state governance but does say that “the public character of education goes well beyond its provision, financing, and management by public authorities.” The report spotlights the power of local autonomy which is in stark contrast to Mongolia’s directive top-down reform approach.

9.3.4.1 Governing Structure

The MoES is responsible for the development and implementation of national programs and educational standards throughout local provinces and city districts (GPE, 2020), as well as the development and implementation of the EMIS for early childhood and general education (UNICEF, 2020). Additionally, the MoES works closely with numerous government-affiliated agencies to develop content, implement training for educators and leaders, manage data, and organize

assessments (MoES, 2021). Local MoES departments have the operational responsibility of managing districts and provincial education departments, distributing resources, and monitoring the progress of national educational goals. The districts are held accountable for ensuring that education is aligned with the national goals and the law. At the school level, a principal's role is mainly administrative with minimal leadership guidance.

Recently, schools have received budgets to administer local programs but “have little discrepancy to respond” to local stakeholder needs and priorities (GPE, 2020). Further, local and school leaders do not have access to performance data in their jurisdiction nor do teachers have access to school data, which complicates decision-making at the local, school, and classroom levels.

9.3.4.2 Collaboration

The spirit of the UNESCO report advocates a democratic approach to governance and a politics-free education sector. Poor intersectoral coordination has been identified as a primary driver of inefficiency in program implementation; additionally, it was stated in the mid-term development report that the “weak connection between educational levels” delays benefits generated by economies of scale and systemic efficiencies (GPE, 2020). The 2020 mid-term development report broadly outlines structural reforms, such as “strengthening cross-sector linkages and building partnerships with all stakeholders” as an ongoing challenge. However, there has been no explicit action articulated to advance this.

9.4 Policy Recommendations

Successful and sustainable education reform rests upon Mongolia's institutional capacity. In the following section, we do not offer policy recommendations within one policy domain but expand upon existing reform policies in hopes of moving the system toward building greater institutional capacity. Our

insights target interventions that increase human resources and management capacities at the student, teacher, school leadership, and system management levels.

In consultation with the MoES-Policy Planning Department, cost and accountability were identified as essential criteria. Additionally, criterion for collaboration and quality were included, as they are relevant to the Mongolian context and important components to consider when deciding policy priorities. *Cost-effectiveness*: Does this work within the current budget, including government or development funds? *Accountability*: Is there a clearly stated stakeholder responsible for policy implementation and monitoring? *Collaboration*: Does this increase opportunities for informed dialogue between stakeholders across educational and societal levels and geographical regions? *Quality*: Does this intervention support meaningful and relevant student learning?

9.4.1 Recommendation 1 – Information Systems & A Culture of Quality Data

If there is a shared belief and practice of high-quality data management, directed by clearly defined performance standards, then Mongolia will increase its capacity to make well-informed decisions that will benefit the education sector, the economy, and society at large.

9.4.1.1 Reasoning & Evidence

To culturally adopt this shared belief, the GoM must cultivate a data-curious public disposition by increasing the data's relevancy and utility across stakeholder groups while simultaneously ensuring the public is aware of, and has access to, data through its robust EMIS. Today, a teacher only has access to their own students' grades. The authors suggest a more transparent and comparative approach, by increasing the depth and dimensions of data accessible to educators, and the public, so that educators may benefit from learning and understanding what their colleagues are doing, what is working and what is not, and why. This will allow for discussion and dissemination of best practices and culturally appropriate pedagogy.

Participating in PISA supports information transparency and comparison in national and international theaters. However, Mongolia can further increase information transparency and develop engagement among educational stakeholders through the standardization of report cards and engagement of parent councils. In the Paraná state of Brazil, it was discovered that schoolteachers had little understanding of their own schools' performance despite having consistent access to the country's EMIS. In response, the Paraná government developed a results-oriented management system that aligned with the specific learning outcomes. The government utilized a decentralized reform approach to increase information transparency by including parent councils' survey responses on student report cards to improve information dissemination and teacher-parent engagement; this was a low-cost policy that increased stakeholder visibility and engagement, progressing Paraná's toward meeting long-term reform objectives (Winkler, 2005).

Additionally, to identify technical challenges and monitor progress, country- and sector-specific standards must be developed and applied. Many countries have recently reformed their education systems by collecting data at local levels to define system standards, a strategy called benchmarking, which enables the use of realistic and measurable learning outcome metrics to monitor performance (Bruns et al., 2011). We suggest Mongolia implement a benchmarking policy for comparative study. By using currently available student and school data, the MoES and local education authorities can work together to compare and identify schools that are successfully obtaining learning outcomes and effectively and regularly utilizing the EMIS system. A school identified as 'successful' can serve as a role model for examples of best practices and be used to understand and standardize outcomes metrics, data collection procedures, and EMIS processes (Adolfsson et al, 2020).

One advantage of a comprehensive and utilized EMIS is its ability to support benchmarking. Benchmarking enables a country to better evaluate its own system, while simultaneously advancing understanding and system attribute comparison

across domestic and international communities; many international development organizations lead with this insight.³²

9.4.1.2 Specific Policy Actions

High-performing education systems consistently assess and continuously provide feedback to see what is working, to find gaps, and to identify areas for further design and investment (OECD, 2008). A proper functioning EMIS provides access to quality data and is a mechanism for simple, ongoing assessment and feedback loops, ultimately facilitating data-driven policy planning dialogues. Therefore, to increase human and system capacities to make well-informed decisions, the following actions are proposed: (1) *Make the data* public and relevant through assessment, awareness campaigns and engagement activities that will underpin a cultural shift. (2) *Identify the main technical challenges* in data collection, management, and analysis. (3) *Identify quality requirements and specific criteria* for EMIS processes, explicitly defining sequences and interactions to ease use and increase implementation capacity.

9.4.1.3 Tradeoffs & Limitations

Mongolia has incurred the majority of ICT hardware costs to enable connectivity, communication, and database construction. It is incumbent upon policy designers to plan and budget for system maintenance, adoption, and diverse stakeholder utilization. EMIS development and refinement is directly in service of accountability mechanisms to ensure quality. Participation and active engagement in comparative study, like PISA, underlines the importance of collaboration and learning from others.

³² UNESCO, in its myriad publications and country competency-building initiatives; World Bank, in its financing of 232 EMIS-related project activities in 89 countries from FY1998 to FY2013 forward global efforts to collectively improve the quality of education through the utilization of international comparative study and benchmarking.

A values-based or cultural approach to the utility of quality data is relatively low cost and can be leveraged to yield outcomes across the country, sectors, and demographic groups. Should the GoM successfully embed the value of quality data in the education sector, their ability to make evidence-based decisions, and course-correct throughout its implementation based on feedback loops, will increase teacher effectiveness and learning outcomes.

9.4.2 Recommendation 2 – Teacher Recruitment Through Apprenticeship Programs

If all public schools run high school teacher apprenticeship programs, then there will be a greater number of passionate and committed students with the right teacher disposition who will enroll in teaching colleges, leading to higher quality teachers over time.

9.4.2.1 Reasoning & Evidence

PISA surveys reveal those countries with improved performance in education had strict requirements for teaching qualifications and incentives to attract high achievers into teaching (O’doherly & Harford, 2018). Therefore, to combat the teacher workforce quantity and quality issues, one solution is to engage young people who have a genuine interest in a teaching career early. Singapore’s success in training quality teachers is the result of a consistent practice in which teacher candidates work alongside teachers at schools to gain teaching experience prior to become teachers. Research shows that “this early exposure to the realities and complexities of teaching can be an important contributor to teacher retention in terms of assessing and promoting teacher candidates’ resilient qualities, such as a passion for teaching, self-efficacy beliefs, and positive emotion” (Ng et al., 2018).

Educators Rising, an example of a program operating in 33 US States, introduces young high school students to careers in education through a unique curriculum. This program is the focal point of many States’ teacher recruitment strategy and includes exemplar-guided classroom teaching experience,

national competitions to enhance professionalism, and stages for student voices at national conferences. The results are encouraging, with 80% of graduates likely to pursue careers in education within their community (*Educators Rising*, 2021).

9.4.2.2 Specific Policy Actions

A collaborative high school teacher apprenticeship program that provides students with teaching experiences in the classroom to identify, inspire, and prepare teachers prior to enrolling in universities. This apprenticeship program, in partnership with local community organizations and universities, can create a great appreciation for, and interest in, the teaching profession, while instilling cultural pride in future teachers and building a diverse workforce. Key components of the program include: (1) *Pairing high school students with an exemplary teacher* will help them gain experience in lesson planning and leading lessons to promote resilient qualities. (2) *Developing leadership skills of students* by participating in activities within their local community, such as leading after-school children's programs or a computer skills class for older individuals who are interested. (3) *Partnering with teacher colleges and other organizations* to offer opportunities to gain college credits or micro-credentials for interested high school students. (4) *Offering the apprenticeship program as an after-school program or as an elective* would allow high school schools across Mongolia to have equal access to opportunity. Pilot programs could be trialed in a rural and urban high school.

9.4.2.3 Tradeoffs & Limitations

Implementing the program described above has the potential to increase teacher colleges' enrollment rates and decrease the teacher attrition rate. Additionally, this program most likely will increase awareness and appreciation of the teaching profession within the community, as well as foster deep ties to the community which may inspire students to teach in their local communities after they graduate. Collaboration and partnership between schools and local universities and engaging students in

community projects align with the main themes of the UNESCO report.

To realize these gains, high-performing teachers must be identified and encouraged. Furthermore, a policy should be developed to incentivize teacher participation in community programs. Adopting an existing curriculum like Educators Rising is relatively low cost with high reward while developing a stand-alone program would require significantly more resources. Ultimately, a version of this program has the potential to yield long-term gains in both quantity and quality of Mongolia's teacher workforce.

9.4.3 Recommendation 3 - Leadership Training for School Leaders and Middle Leaders

If Mongolia develops its school leadership pipeline by identifying and assessing leadership potential in teachers early in their careers and provides training to equip all school leaders with skills to manage the complexities of a 21st century school, it will lead to more successful education reforms and accountability in learning outcomes.

9.4.3.1 Reasoning & Evidence

For the MoES to achieve effective implementation of education reforms and increased accountability of educational outcomes, the development of school leaders' leadership capacity is crucial, and requires a principal's ability to manage high levels of complexity in 21st century school governance and policy implementation (Ng, 2013).

Today, the MoES has a rudimentary and inconsistent principal training practices. The authors suggest the MoES review its curriculum and develop a learning and collaboration platform for principals to become organizational leaders who are skilled at handling complexities that mirror the challenges of school leadership in a real-life context, rather than solely as policy enforcers.

School leadership studies have demonstrated that principals must work with and through others, such as "middle leaders"

(e.g., subject department heads), to achieve positive and meaningful educational change (Leithwood, 2016). Hannay and Denby (1994) argued that middle leaders are in a better position than principals to implement change in schools given their superior understanding of classroom needs due to their close relationship to teachers.

Thus, we suggest the MoES develop a leadership career track for teachers, which will include identifying leadership potential in novice teachers. Additionally, teachers will have opportunities to build leadership competencies through professional development, participation in strategic planning, and curriculum leadership. The standardization of a sequenced leadership development process would help to ensure all future school leaders have a shared vision and knowledge base.

9.4.3.1 Specific Policy Actions

It is critical to have a “consistent and adequate supply” of effective leaders who are equipped with the knowledge, skills, and attitudes to lead and execute reform programs through collaboration and communication amongst school leaders with different stakeholders. Where necessary, these leaders should have the capacity and autonomy to help define what constitutes quality education and learning in the context of the UNESCO report. Therefore, the following actions are proposed: (1) *Develop a school leadership pipeline* through the creation of a structured leadership career track for teachers. (2) *Track and identify leadership potential* in teachers starting from the beginning of their career and managed in EMIS. (3) *Establish a sequenced leadership training structure* to include a Middle Leadership Program designed to give middle leaders a foundation in management and an improved Principal Leadership Program. (4) *Incorporate a system wide mentoring and networked learning structure* to provide support and opportunities for principals, especially novice principals, to establish and nurture relationships with experienced principals. This will build a culture of “leaders developing leaders” to support scalability and sustainability of school leadership talent development.

Comparative study of top-performing education systems, such as Singapore and Shanghai, demonstrates that developing the professional and leadership capacity of school leaders, together with a peer mentoring culture amongst leaders, improves student learning (Jansen & Clark, 2013). Given the existing relationship between the MoES and the MNUE, we suggest a university–government partnership to design and pilot implementation. If the MoES can track potential school leaders, using performance data in EMIS, it will be able to convey to the MNUE some recommended developmental needs of the leadership program participants and design a program that will address these needs accordingly.

9.4.3.3 Tradeoffs & Limitations

The cost of these leadership programs can be relatively high as education and management experts are needed to design and implement the new programs. However, long-term gains include a shared culture of accountability, increased opportunities for intra- and inter-school collaboration and communication, as well as with external partners.

9.4.5 Policy Alternative 4 - An Implementation Unit

If a lean team of professionals is formed with the explicit responsibility to develop routines that support stakeholders' capacity to independently implement policies and monitor performance, then real gains in system performance measures will be delivered for citizens.

9.4.5.1 Reasoning & Evidence

An implementation team, or “delivery unit” is a small, dedicated team of highly-skilled people committed to making sure that the government's programs and policies are being implemented according to set targets— a team that routinely checks and monitors implementation. In 2001, Britain underwent a whole-system reform. To execute, the British government created a Primary Minister Delivery Unit (PMDU); 40 employees were temporarily hired to work with the bureaucracy that provided

services to approximately 60 million people. The PMDU ensured that the relevant ministry departments had effective delivery plans. The assessments of the outcomes were used to improve the performance of the policy initiatives. Within four years, the PMDU had helped the government achieve over 80% of its objectives (OECD, 2017). Similarly, the Massachusetts Department of Elementary and Secondary Education (DESE) established a delivery unit in 2010. The delivery unit consisted of a unit leader, a deputy, and two analysts to drive the system-wide delivery effort. The unit's office was housed outside the typical state management hierarchy. One year later, the results showed that the DESE Delivery Unit had made great progress in establishing the disciplines of delivery throughout the agency (Barber et al., 2016).

A McKinsey & Company report (2010), *How the World's Best School Systems Keep Getting Better*, explains findings regarding education systems' frequent difficulties contextualizing implementation actions. This report studied 20 different education systems, reporting on three common practices on how to implement sustainable system-level practices: by establishing horizontal collaborative practices between teachers within and across schools, by developing a mediating layer between the schools and governing bodies, and by planning for and training 'tomorrow's' leaders. This is demonstrated in the Ontario, Canada reform of public schools where the essential component was the design and implementation of school-level initiatives which was then reflected in the leadership infrastructure through various Ministry of Education initiatives (OCED, 2011). The reform helped establish new professional norms for stakeholder relationship-building and collaboration, and the mobilization of data. The successful implementation and establishment of new standards were supported and maintained over time due, in part, to consistent political leadership of the Premier of Ontario, interdisciplinary leadership, and external consultants experienced in education reform (Boyd, 2019).

9.4.5.2 Specific Policy Actions

Mongolia's MoES is planning to create a relatively large implementation department within the MoES. Therefore, the following policy considerations pertain specifically to features of a highly effective implementation team, based on current evidence: 1) *Team function* is not a project management office but a professional group of specialized individuals who support ministry leaders in facilitating implementation processes and monitoring progress. 2) *Team size* should be small to preserve flexibility and allow for selectivity in hiring. 3) *Team members* should consist of humble, highly qualified, and collaborative individuals—building trusting relationships with state and local stakeholders and appropriately facilitating difficult conversations are central to this team's role. 4) *Team positionality* refers to maintaining a nonhierarchical relationship with the MoES, this independence will allow the Team to retain an objective perspective, which is crucial when monitoring and analyzing system strengths and weaknesses.

9.4.5.3 Tradeoffs & Limitations

The establishment of an implementation team (Team) described above emphasizes quality over quantity. The client reported that the MoES has already approved and budgeted for a new implementation department within the MoES; staffing projections are between 80-100 new employees. Therefore, the ministry has an opportunity to save money and increase quality, if they spend time seeking out and securing highly skilled individuals who are experienced in reforming public systems and collaborating with a variety of stakeholders. Michael Barber's "delivery unit" has received criticism for being a highly centralized approach towards reform, sometimes resulting in an additional bureaucratic layer. Avoiding this pitfall is ironically dependent on design and implementation of the "delivery unit". Therefore, Mongolia may want to consider bringing in people from the outside and mixing them with people who know and understand the Mongolian political landscape. Further, the Team's nonhierarchical relation with the MoES offers opportunities for long-term sustainability and strengthening

accountability because this partnership is grounded in trust across system-level stakeholders. The Team must maintain its independence overtime to preserve objectivity, credibility, and relevance toward system actions. However, if the Team's leader and staff members are not competent, credible, or relevant themselves then the feasibility of long-term consistent implementation of quality education practices will be low.

When comparing this policy recommendation against the defined criterion, positive outcomes are projected, assuming all outlined parameters are met. However, the success of an implementation department or team is dependent on accurate and efficient data collection, and collaboration with stakeholders. Collective action and shared beliefs amongst the stakeholders are of the utmost importance— if this does not exist, this “team” will become a bureaucratic barrier, hindering hopes for implementation success.

9.5 Conclusion

Mongolia is a culturally rich and resilient nation, working to establish its voice on the international stage and to deliver real educational gains and a brighter future for all its citizens. Mongolia's ambitious education reform priorities, outlined in Vision 2050, are supported through newly proposed education legislation— conceptually, both are in alignment with the UNESCO report. However, many of the reform objectives are broad and lack measurable actions needed for successful implementation. The government efforts, although well-intentioned, reflect a top-down approach that contrasts many of the goals stated in the country's reform plans. As Mongolia is in their reform infancy, there is time for reflection and refinement as the country moves forward in its reform.

The recommendations listed in the previous section are interdependent of one another, only if implemented in concert will meaningful gains be achieved and sustained. The development of performance indicators (standards), systems (routines), and professional competencies for teachers and leaders should be prioritized. These elements, in combination with one another, will lay the foundation for proper data

collection and management, adequate training and tracking of professionals, and informed dialogue between stakeholders. The development of standards does not depend on 2022 PISA results; Mongolia may begin immediately utilizing the benchmarking strategies described.

The spirit of the UNESCO report advocates a democratic approach to governance and a politics-free education sector. If the government creates realistic standards and feasible routines in partnership with local stakeholders; this will ensure a collaborative dynamic that supports mutual learning and will naturally cultivate a culture of transparency, ultimately leading Mongolia to actualize its goals and manage implementation.

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Chapter Ten. Nepal

Building Teacher Capacity in Nepal Beyond the COVID-19 Pandemic

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Abstract

The COVID-19 pandemic impaired an already struggling education system in Nepal, resulting in severe learning disruption among more than 7 million students in the primary and secondary levels. The pandemic not only brought new challenges but exposed and exacerbated pre-existing ones, including lack of teacher effectiveness. With an aim to provide policy recommendations to the Ministry of Education, Science, and Technology, our client, this chapter analyzes the impact of the COVID-19 pandemic on educational opportunity in Nepal, focusing on teacher preparedness to support student learning during and beyond the pandemic. Through a combination of desk research and interviews with the Undersecretary and Secretary of the Ministry, teachers, principals and researchers, we arrive at key levers for improving teacher effectiveness, namely teacher competence, accountability and mindset. Aligning with UNESCO's report: *Reimagining Our Futures Together: A New Social Contract for Education* (2021b), our policy recommendations are arrayed against these key levers to affect comprehensive and impactful change in the domain of teacher capacity building.

Over the past two decades, Nepal has made significant gains in increasing access to education. There has been remarkable growth in enrollment rate, literacy rate, and gender equity throughout the education system (UNESCO Institute for Statistics, 2021). While there has been progress in getting all school-age children to school, this access has been

compromised due to the COVID-19 pandemic. On March 24th, 2020, Nepal went into a lockdown that suspended all schooling, affecting around 7.4 million school children immediately (Dawadi et al., 2020). The Ministry of Education, Science, and Technology (MoEST) issued guidelines and partnered with international organizations to support learning despite a significant digital divide. Though the MoEST guidelines were comprehensive in addressing and accommodating learning experiences for students with different levels of digital access, there were significant barriers to achieving full implementation (Acharya et al., 2020). Teachers were presupposed to be effective enough to carry out these directives; in reality, this was an assumption. According to UNESCO's report *Reimagining Our Futures Together: A New Social Contract for Education* (2021b), teachers play a vital role in the efficacy of education systems in delivering learning. By centering the teacher as the actor most crucial to the MoEST's goals in supporting learning through the pandemic and beyond, we align with UNESCO's goals and vision for transforming the work of teachers.

Specifically, this chapter first provides an overview of the Nepali education context and pre-existing challenges revealed and exacerbated by the pandemic. The second section will examine lack of teacher effectiveness, and the MoEST's response to the impact of the pandemic and effort to support teachers. Using Bardach's (2020) policy analysis process, we will then identify and describe three key levers of change that have the most potential for increasing teacher effectiveness. The final section will provide policy recommendations inspired by the UNESCO report, which align with the MoEST's goals in increasing teacher capacity.

10.2 Education in Nepal

Although educational access in Nepal has increased, learning outcomes have remained low for Nepali students. For example, the 2018 National Assessment of Student Achievement reported that 32% of grade 5 students were below basic level in math, achieving mastery in only 5% of the tested curriculum (Kafle et al, 2019). This is especially concerning as Nepal's

school enrollment rate is growing and is expected to grow until 2050 (Sarker et al., 2021). The education system is under pressure to make sure its young population, instead of becoming mired in unemployment or migrating for low skilled jobs, graduates with the necessary skills for a productive life (ILO, n.d.; Ministry of Labour, Employment, and Social Security, 2020).

In addition, there is widespread discrepancy in the quality of education delivered between public and private schools (Kafle et al., 2019). In 2019, while over 90% of private school students passed the Secondary Education Examination (SEE), the pass rate for public schools hovered around 30% (Setopati, 2018). In this chapter, we focus exclusively on the public school system, because it serves 80% of all Nepali students, including the most vulnerable, as well as come under the direct responsibility of the MoEST (Setopati, 2018).

Finally, the new federal constitution of 2015 gave local governments jurisdiction over basic and secondary education, which transitioned Nepali education from a centralized model to a decentralized model (Government of Nepal, 2015). The decentralization of education has started a new era of political tussle over education governance. This interplay between economic, social, and political factors all make education in Nepal an extremely important but challenging area to reform.

10.3 Education During COVID-19

10.3.1 Learning Disruption

In March 2020, the Nepali government announced a nationwide lockdown, immediately suspending schooling. With the surge in cases, the government extended the lockdown by two-week increments, and for over a year and a half, most schools remained closed. UNICEF reported that two-thirds of Nepal's schoolchildren were unable to access remote learning during school closures (Thompson & Dhakhwa, 2020). The World Bank reports that in Nepal's case, conservative estimates predict closures will result in a 0.5-year loss of learning-adjusted

schooling for an average student, from 6.9 to 6.4 years (Radhakrishnan et al., 2021).

In addition, alternative methods of learning require internet access or some form of media, which means that unequal digital access has led to unequal learning opportunities during the pandemic worldwide (Saavedra, 2021a). In Nepal, only 13% of schools have internet access and 45% of students are unlikely to regularly access online or other media (Pandit, 2020). Even when internet access or other educational media is available, participation is predicted to be low (Rahman & Sharma, 2021). This gap in digital access has caused greater learning loss among children from disadvantaged backgrounds in Nepal, such as children from rural areas (Dawadi et al., 2020; Panthhe & McCutcheon, 2015).

10.3.2 The MoEST Response and Limitations

In response to the learning disruption brought on by the pandemic, the MoEST responded with several guidelines and policies.

Table 1. Timeline of the MoEST's Responses to the Impact of COVID-19

Date	Event
Mar. 18, 2020	Secondary Education Examination (SEE) postponed
Mar. 24, 2020	National official lockdown to suspend all schooling in Nepal
May 2020	<i>COVID-19 Education Cluster Contingency Plan</i>
June 2020	<i>Student Learning Facilitation Through Alternative Systems Guidelines (SLFG)</i>
Sept. 2020	Updated SLFG with <i>Emergency Action Plan for School Education</i>
Nov. 2020	<i>Framework of School Reopening</i>
Sept. 2021	Reopening of schools, decided by local governments

Since May 2020, the MoEST worked to design differentiated and equitable learning plans for students with different levels of digital access. Specifically, the *Student Learning Facilitation Through Alternative Systems Guidelines* issued in June 2020 categorized students into 5 groups: students who 1) have no access to digital resources, 2) have access to FM radio, 3) have access to TV, 4)

have access to computers but no access to the internet, and 5) have access to all the mentioned resources. For each group, the MoEST provided alternative teaching and learning materials, ranging from printed packets to online platforms, for teachers to deliver instruction (MoEST, 2020a; Learning Portal, n.d.; RSS, 2020). Furthermore, in September 2020, the MoEST expanded on the previous guidelines, accompanying them with detailed action steps in order to clarify teachers' responsibilities, and assigned tasks to additional stakeholders from the federal government to the local level (MoEST, 2020b, 2020c).

The MoEST also attempted to build teachers' digital literacy by conducting training programs. In September 2020, the UNESCO-led Capacity Development for Education Programme (CapED) collaborated with the MoEST Center for Education and Human Resource Development (CEHRD) to initiate a two-phase teacher training program in all districts on alternative teaching methods (UNESCO, 2020; UNESCO, 2021a). With a focus on online instruction and methods to harness radio and television lesson delivery, the program strived to equip teachers with flexible strategies for alternative teaching.

Despite efforts to build teacher capacity, a lack of effective monitoring and evaluation of programs precluded coherent results. It can also be assumed that teacher effectiveness was not improved due to the fragmented nature of guideline implementation, and small-scale nature of initiatives when they reached the ground (B.S. Kafle, p.c., October 18, 2021). For example, one program narrowly covered 155 teachers, and UNESCO (2020) was only able to conduct a quick survey for feedback without a systematic evaluation of the program's benefits.

In addition, although the pandemic necessitated the need for digital literacy training, these initiatives did not address deep systemic issues apparent in Nepal's teaching profession. In Nepal, teachers were especially important in implementing the MoEST guidelines as most of the on-the-ground responsibilities for supporting student learning were given to them (MoEST, 2020c). However, both internal and external factors, from limited capacity to pandemic constraints, prevented teachers

from carrying out these directives (Acharya et al., 2020; Interviewee #2, p. c., October 14, 2021³³).

Low teacher effectiveness is due to system-level policies that do not adequately recruit, develop, and sustain high-quality teachers. The pandemic challenged Nepal's education system in ensuring learning continuity, in which teachers play a vital part (Saavedra, 2021b). In the UNESCO report, teachers are reimagined as having a unique role to play in building a new social contract for education. Teachers do not exist solely in their own classrooms but are part of a complex and interconnected education system, and vital adjustments must be made to their profession in order to strengthen it against both ongoing and future challenges (UNESCO, 2021b). We thus focus on teachers with the informed assumption that effective teachers will lead to enhanced learning in Nepal in the pandemic and beyond. In doing so, we suggest that teachers require not just digital literacy skills for an ever-changing present, but foundational competence, accountability, and growth mindset for a future that has already arrived.

10.4 Key Levers of Change

In Nepal, teacher effectiveness to support student learning outcomes as outlined in the national curriculum has been low (MoEST, 2021), and the pandemic exacerbated and revealed the gaps that teachers had in reaching their students. Through the lens of the SABER-Teachers Framework³⁴, we identify teacher competence, accountability, and growth mindset as most essential to building teacher capacity in this particular context to

³³ See **Appendix** for a complete list of interviewees.

³⁴System Approach for Better Education Results (SABER) Teachers Policy Goals: 1. Setting clear expectations for teachers; 2. Attracting the best into teaching; 3. Preparing teachers with useful training and experience; 4. Matching teachers' skills with students' needs; 5. Leading teachers with strong principals; 6. Monitoring teaching and learning; 7. Supporting teachers to improve instruction; and 8. Motivating teachers to perform (World Bank, 2013)

enhance student learning. With the acknowledgement that a lot of factors come into play in creating an enabling environment for teachers to be effective, we analyze these three key levers in the context of Nepal.

10.4.1 Competence

Two major aspects of teacher competence are: 1) content expertise and 2) classroom pedagogy. Public school teachers in Nepal lack content knowledge in their own subject areas. In a large-scale survey that tested teachers on their content, only 36% of math teachers answered all provided multiple-choice questions correctly, and 9% of science teachers answered all questions accurately (Schaffner et al., 2021). In addition, teachers have been largely unsuccessful in engaging students in meaningful learning, and traditional teaching styles of “sage on the stage” delivery still prevail (MoEST, 2021). During the pandemic, a lack of pedagogical skills, digital or otherwise, meant that attempts at remote learning were not effective (Ghimire, 2020).

This competence lever relates to the SABER (2013) recommendation of attracting the best into teaching, which necessitates minimum requirements for teacher candidates’ educational qualifications. This lever will also address the assumption that teachers have the adequate skills to translate ideas learned in previous education or training into class sessions for their students. Research indicates that high teacher competence correlates to higher student achievement in school (Wahyuddin, 2017). Thus, addressing both content knowledge and pedagogical skills touch on the basic requirements for being effective in the classroom, and will equip teachers in forwarding student learning.

10.4.2 Accountability

Lack of public accountability is a problem affecting the entire bureaucratic and governance system in Nepal, including education (Acharya & Zafarullah, 2020). There is a lack of robust monitoring and evaluation of teacher performance to

hold teachers accountable to their jobs, as well as high political influence in teacher hiring, promotion, and transfers (Mathema, 2007; MoEST, 2016; World Bank, 2001). The politicization of the teaching profession has resulted in teachers being accountable to political parties rather than school principals and supervisors. Political influence in teacher promotion and lack of meritocratic advancement also mean there is little incentive for teachers to improve their instructional practices (Interviewee #2, p.c., October 14, 2021). During the pandemic, a deficient system of teacher accountability was a factor in the difficulties that the MoEST faced in mobilizing teachers to support alternative learning.

As a key lever in increasing teacher capacity, accountability will connect teachers to their ultimate goal, which is student learning. Studies show that holding teachers accountable to multiple stakeholders in evaluation, especially students, can have an effect on the quality of teaching and student results (Vaillant & Gonzalez-Vaillant, 2017). In addition, SABER (2013) outlines the need for motivating teachers to perform through effective monitoring of teaching and learning, coupled with accountability to evidence, systems, and multiple mechanisms of evaluation. In our policy recommendation, we discuss the ways teachers should be held accountable by their evaluators, trainers, principals, and professional development.

10.4.3 Mindset

The new national curricular framework envisions a student-centered, interactive, collaborative, project-based, community-based and practical education (MoEST, 2019). However, based on a survey covering more than 200 schools, less than half of the teachers were interested in learning ways to teach more effectively (Schaffner et al., 2021). Especially for older teachers with decades of experience, there is a fixed mindset towards improvement and a reluctance to change teaching styles to allow for more active student learning (B. S. Kafle, p.c., October 18, 2021).

In order for teachers to embrace the dynamic nature of their profession, they need to feel ownership over their ability to

affect change in their thinking. Especially in the high-needs teaching situation that the pandemic presents, an environment must be created in which teachers are motivated to continuously improve their practice, and this starts with individuals (Gautam et al., 2015). This lever builds up and reinforces a growth mindset through providing impactful training and experience, as well as matching teachers' skills with students' needs (World Bank, 2013). In our recommendation, we discuss the relationship between teachers harnessing growth mindset and self-efficacy for personal professional development, and how this translates to ownership over their role as leaders in their own classrooms.

10.5 Policy Alternatives

In supporting the Ministry to consider encompassing policy options that target multiple challenges, we consider different alternatives to strengthen teacher competences, accountability, and a growth mindset. These policy alternatives are inspired by policies from other contexts, and most are extensions of the existing education policies in Nepal. We select four criteria to examine our alternatives: 1) resources needed, such as manpower, time, money, and infrastructure; 2) organizational feasibility within the established governing structure; 3) political support from key stakeholders; and 4) scale of impact on the education system. We select these criteria based on the Ministry's limitations, overall governance system, politics within the educational system, and long-term impact.

In our policy matrix (Table 2), we grade the alternatives from *Feasible* to *Not Feasible* following our criteria. For example, the difference between *Somenhat Feasible* and *Less Feasible* in political support may involve alignment of interests for a majority of stakeholders versus fewer stakeholders. Similarly, we project the impact on each lever of change by grading it from *Great Improvement* to *Less Improvement*. We arrived at these ratings after group deliberations based on research and interviews and informed our decisions by projecting the outcomes. In the table below, we illustrate the feasibility of each policy alternative in terms of the criteria and level of improvement in each aspect of

teacher

capacity.

Table 2. Policy Alternatives Matrix

Policy Alternatives against Criteria	Resources	Organizational Feasibility	Political Support	Scale of Impact
Community of Practice	●●●●	●●●○	●●●●	●●●○
Division of Responsibility	●●○○	●●○○	●●○○	●●●○
Model School	●●●○	●●○○	●●●○	●○○○
Teachers in Policymaking	●●●○	●○○○	●●○○	●●○○
Teacher Professionalization	●●●○	●●●○	●●●○	●●●●
Teacher Training	●●●○	●●●○	●●●●	●●●○

Policy Alternatives against Levers	Competence	Accountability	Mindset
Community of Practice	★★★	★★★	★★☆
Division of Responsibility	★★☆	★★☆	★★☆
Model School	★★★	★★☆	★★☆
Teachers in Policymaking	★★☆	★★☆	★★☆
Teacher Professionalization	★★☆	★★★	★★☆
Teacher Training	★★★	★★☆	★★☆

Legend:

●●●● = Feasible	★★★ = Great Improvement
●●●○ = Somewhat Feasible	★★☆ = Some Improvement
●●○○ = Less Feasible	★★☆ = Less Improvement
●○○○ = Not Feasible	

After evaluating the policy scenarios and their criteria, we find that *teacher professionalization*, *teacher training*, and *community of practice* are comparatively more feasible and impactful. Furthermore, these recommendations are guided by initiatives from the UNESCO report (2021b), which addresses how teacher education, recruitment, continuous development, and collaboration can effect change in elevating student learning and education systems. Thus, we make the following recommendations to the MoEST to support them in building teacher capacity.

10.6 Policy Recommendations

10.6.1 Recommendation 1: Professionalize and Evaluate Teachers

The UNESCO report (2021b) addresses the demand for quality teacher candidates, especially in response to a worsening teacher shortage due to COVID-19. We propose that this can be attained through intentionally controlling the candidates that come through the recruitment system and evaluating in-service teachers. By professionalizing teacher candidates and using a system of evaluation, we expect to promote teacher competence and accountability, which will then improve classroom experiences for students and elevate their learning. In the long term, this will also initiate a cultural shift in revitalizing positive public attitudes toward teachers and the education system.

Currently, teacher recruitment in Nepal occurs in two ways: the Teacher Service Commission (TSC) conducts a qualification process for permanent teachers, or the District Education Office (DEO) and School Management Committee (SMC) fill in vacancies by hiring temporary and contract teachers (Upadhyay-Dhungel, 2021). The TSC has been effectively “paralyzed” for the better part of 17 years due to political intervention and influence (NIRT, 2017). Only 60% of the teachers are vetted permanent teachers (Upadhyay-Dhungel, 2021), and the remaining 40% are temporary teachers hired by SMCs.

While permanent teachers are certified by the MoEST through a comprehensive system, there is no standardized licensing for temporary teachers. Qualifications for teachers include 10 months of training, with secondary teachers obtaining a Bachelor of Education degree and primary teachers completing a School Leaving Certificate plus 2 more years of higher secondary education (Dilas et al., 2018). Temporary teachers do not need to go through this qualification process, and evidence shows that the majority are not qualified for their jobs (Ghimire, 2018). The lack of standardized licensing results in low competence as well as a loophole for nepotism and favoritism that leads to low accountability (Upadhyay-Dhungel, 2021).

The current system of evaluation specifies teacher promotion criteria based on seniority, academic qualifications, training, and performance (NIRT, 2017). However, this process is not strictly followed, and many teachers are frustrated with the unclear process of being promoted to permanent status (Upadhyay-Dhungel, 2021). Promotion is also heavily influenced by politics, and experienced teachers have experienced delays in promotion due to lack of political patronage (Interviewee #2, p.c., October 14, 2021).

To improve the current teacher recruitment and evaluation system, we propose the following policy alternatives: 1) a centralized and systematic qualification system, and 2) a performance-based evaluation system.

10.6.1.1 Centralized and Systematic Qualification System

The current system relies heavily on local ad hoc recruitment that leads to various competence levels in teachers and political intervention from the local level. Thus, to gain control of teacher quality, the Ministry must strengthen the TSC and take the lead in the licensure process. We recommend that the Ministry initiates a qualification examination for all teacher candidates through the TSC and issue a policy to establish basic standards for temporary teacher recruitment. This might include degree requirements, teacher qualification exams, classroom internship credits, and more. Through this, the SMCs and local governments still retain control over teacher recruitment at their

schools, and the Ministry can control the competence and quality of the temporary teachers.

10.6.1.2 Teacher Evaluation System

The evaluation system should be performance-based and free from political influence. To do so, the Ministry should adopt a more comprehensive and objective system. For example, in Uruguay, teacher evaluation consists of four parts: self-evaluation, interschool peer reviews, a school director's report, and a report from a pedagogical technical director (Vaillant & Gonzalez-Vaillant, 2017). Such an evaluation system holds teachers accountable to various stakeholders, such as headteachers and colleagues, and this has been proven effective in motivating teachers in professionalization (UNESCO, 2018). The MoEST can conduct similar evaluations by hiring university-level researchers and education professors as pedagogical technical directors or collaborating with international organizations. The evaluation results will be used to inform targeted support and increased scrutiny, before more high-stakes decisions, such as promotion and dismissal.

In addition, teacher performance should also be linked with student learning outcomes. In the United States, some schools utilize a teacher value-added model, which measures a teacher's effect on student achievement, and compensation is based on teacher effectiveness (Chetty et al., 2012). Importantly, this is less associated with student base scores, but growth in student achievement. Nepal may adopt similar measures, in a staged roll-out, to incentivize teachers to focus on continuous student improvement.

10.6.1.3 Considerations

Both proposals can be integrated into the existing institutional structures and resource allocation. The biggest human resource investment should be allocated to strengthening and increasing the TSC's capacity. If the measures are employed, teacher quality will improve on a national scale. We believe that the teacher union will support this policy, as it professionalizes the profession, and to some extent, reduces nepotism and corruption. We expect there will be a spectrum of support from teachers. On one end, professionalization enhances a merit-

based career system and elevates teachers' social and professional status. Since evaluation is directly tied to promotion, there are explicit career and monetary incentives for teachers to improve. On the other hand, there may be pushback from some teachers due to a roll-out of an unfamiliar evaluation system. We also recognize the possible resistance from local governments and SMCs, who benefit from the current system, and also from temporary teachers, because of fear of losing their jobs. Therefore, the Ministry should also consider providing in-service training for current temporary teachers for the first few years after the policy is established.

10.6.2 Recommendation 2: Reform and Evaluate Teacher Training Programs

The UNESCO report emphasizes the importance of making teacher professional development (TPD) continuous and enduring, and aligning training with how teachers can support student learning. Effective training programs, including both pre-service and in-service training, are essential to teacher competence and growth mindset (Villegas-Reimers, 2003). In addition, research on TPD in Nepal shows that programs will be effective in improving student learning, as long as teacher needs are met and teachers are made aware of the relevance of participation (Subedi, 2015). Evaluation of teacher training programs is critical in guiding the design of programs that tailor to teachers' needs and expectations.

In Nepal, in-service training programs are regularly organized, since both prior national education plans emphasize the importance of teacher training (MoEST, 2009, 2016). Over 90% of teachers already participate in TPD in the form of teacher training (Pokhrel et al., 2016; NIRT, 2017). However, an independent research study on Nepalese teachers has found that current teacher training programs do not significantly change teachers' pedagogical practice (Schaffner et al., 2021).

In order to reform teacher training programs, we suggest that the Ministry should 1) directly tie pre-service training to student learning, 2) provide effective training for TPD program trainers,

3) make TPD programs responsive to teachers' needs, and 4) carefully evaluate TPD programs and make knowledge-informed changes.

10.6.2.1 Directly tie Pre-service Training to Student Learning

Pre-service training is a critical period to improve teacher competence, and according to the UNESCO report, ensuing TPD opportunities ought to orient teachers to challenges and prospects of the classroom. For example, Singapore's National Institute of Education, the sole provider of initial teacher education, provides teacher candidates with classes that imbue practical teaching skills, instead of electives that are irrelevant to actual classroom instruction (Jensen et al., 2012). To better prepare teacher candidates, the Ministry must consider collaborating with universities to design curricula most suitable for improving teacher competence, which include their pedagogical and content expertise. Pre-service training should thus be directly tied to student learning to provide an authentic learning experience for teacher candidates.

10.6.2.2 Provide Effective Training for TPD Program Trainers

Current studies reveal that trainers are not equipped or competent to conduct teacher training, which results in low teacher expectations and trust in the programs (Schaffner et al., 2021; Pohkrel et al., 2016). Trainers have reported that they themselves do not receive any training but are only handed guidelines and documents before leading a training session, which leads to ineffective material delivery (Schaffner et al., 2021). To break this cycle, the Ministry must start by providing trainers with essential training and authentic practice. University researchers and international organizations can assist in utilizing pedagogical theories and designing hands-on activities with trainers. These activities can later be integrated into the TPD programs. The key idea is to model and actively exemplify pedagogical moves during training sessions, by teaching teachers in a way that they can duplicate in the classroom.

10.6.2.3 TPD Programs Should Respond to Unique Challenges Teachers are Facing:

Existing training programs strictly follow guidelines and agendas with little flexibility to incorporate teachers' true needs, such as individual content knowledge gaps and low subject knowledge (Schaffner et al., 2021; Pohkrel et al., 2016). Due to the pandemic, teachers are facing more challenges related to lack of relevant skills and adapting to change (Acharya et al., 2020). In response to this, TPD programs should prepare teachers for assessing student progress and gaps in knowledge as schools are restarting, and advise how to meet students at a variety of levels. TPD programs must also be responsive to teachers' unique requirements for teaching in a changing reality. The training centers should collect teachers' opinions on their desired training topics and design workshops accordingly. In this way, teachers will also feel more engaged in the programs they participate in, more heard in their own development, and more empowered in the classroom.

10.6.2.4 Evaluation of Current TPD programs

To collect feedback from TPD programs and assess program efficacy, the Ministry should collect more information beyond surface-level data such as attendance, frequency, and survey reviews. The Ministry must demand training staff and headteachers to observe the transfer of knowledge into the student classroom experience. Observations can gauge the effectiveness of teacher training and the skills that teachers gain from the programs. Secondly, program evaluation should be conducted from a holistic point of view. The Ministry should construct a logic model of teacher professional development and formatively evaluate the programs against the model to identify gaps in the training programs (Lawton et al., 2014). An extension to formatively evaluating TPD programs would be to engage in evaluative inquiry, in which greater insights and understandings about issues are developed through a nonlinear process of dialogue, reflection, questioning, and clarification of beliefs and assumptions (Preskill & Torres, 1999). Ultimately, the interplay between individual, team, and organizational learning will lead to informed decisions for organizational change in how training is conducted. Integrating inquiry

processes into daily evaluative practices will lead to training programs adopting qualities of a learning organization, in which knowledge is created, acquired, transferred, and most importantly, used. The training program can be modified to reflect new insights, and this constant iteration will lead to improved personal and professional performance for both trainers and teachers (Preskill & Torres, 1999).

10.6.2.5 Considerations

Since TPD programs are already established in Nepal, we believe there are already adequate resources and institutional structure to implement these changes to reform existing initiatives. International organizations such as UNESCO and the World Bank are already involved in various teacher training programs. Thus, they can be assets in helping build large-scale programs. In addition, reforming TPD programs will appeal to teachers if they are given the time and space to give feedback and contribute to training programs. Since TPD programs occur nation-wide, improvements can have ripple effects for the whole nation if implemented successfully. Even so, there are a few limitations that we recognize. Firstly, training centers might be opposed to evaluating their programs, fearing it would reveal ineffectiveness and carry with them punitive consequences. Furthermore, a TPD reform requires not only changes in behavior but also transformation in mindsets, and most TPDs only address the former (Kegan et al., 2009). A large-scale, lasting, evidence-based reform of TPD programs will require effort from all actors, and the MoEST must lead it with a measure of resolution, while listening to and reassuring relevant stakeholders, especially teachers.

10.6.3 Recommendation 3: Support and Sustain Communities of Practice

A professional learning community enables teachers to collaborate and learn to better support student learning. The UNESCO report (2021b) states that teachers need “rich collaborative teaching communities, characterized by sufficient measures of freedom and support.” By establishing a

community of practice, teachers can share experience, exchange teaching methods, synthesize and develop better pedagogies, improve personal competencies, and foster a growth mindset (Reimers, 2021). Furthermore, when teachers collaborate and rely on each other, it increases teacher accountability to colleagues, to their community, and to students (Jensen et al., 2016).

During the pandemic, some teachers organically and independently formed communities of practice outside of government directives. One public school teacher shared that teachers in his community mobilized to provide support and digital literacy training to peers, and that these kinds of communities were scattered across the country (Interviewee #2, p.c., October 14, 2021). For example, the Society of Technology Friendly Teachers, an independent grassroots organization, provided technical support and facilitated training and exchanges for teachers during the lockdowns (*Society of Technology Friendly Teachers, Nepal*, n.d.).

Existing teacher-organized programs have offered much support for local communities of teachers in times of crisis. To capitalize, the Ministry should 1) enhance the strengths and reach of these existing grassroots organizations, 2) promote inter-school communities of practice, and 3) promote intra-school communities of practice.

10.6.3.1 Enhancing the Strength and Reach of Existing Organizations

As our research suggested, there were many teacher organizations that sprouted up within communities during the pandemic (Interviewee #2, p.c., October 14, 2021). Some local governments also collaborated with these organizations for training (Neltoft, 2021). The Ministry should acknowledge the efforts and achievement of these organizations, provide monetary and institutional support for these communities, and use them as models for inter-school communities in other regions.

10.6.3.2 Inter-school Community of Practice

Building an inter-school community can be powerful in improving teacher competence and accountability. In Manizales,

Colombia, and Chengdu, China, systems of inter-school communities provide support and expertise to all schools in the region. The government, collaborating with universities and private organizations, identifies expert teachers in different schools, then constructs a team of experts who meet regularly to plan activities and test new ideas that can be applied on a larger scale (Reimers & Chung, 2018). In Nepal's case, the Ministry can also collaborate with universities and civil society to co-construct teams of expert teachers. For the teams to work efficiently, the Ministry should create space and time for these expert teachers to engage in professional activities, to best harness their skills, and create dialogue among general teachers from different schools.

10.6.3.3 Intra-school Community of Practice

Expert teachers can further aid a teacher community by serving as mentors at their own schools. High performing school systems, such as in Shanghai, China, establish “lesson groups” of teachers that share the same content and engage in collective lesson planning and class preparation. In Singapore, the system ensures that at least one teacher in each school has the capacity to undertake evidence-based research (Jensen et al., 2012). These methods harness teachers’ familiarities with their own contexts and lend their expertise not only to their own class of students, but to all students in their schools. Considering the varied sizes of schools in Nepal, we propose that intra-school communities be formed by both subject and by grade.

10.6.3.4 Considerations

This bottom-up recommendation inspires teachers on the ground to work collaboratively, advance their skills, and hold each other accountable, with the local government and the Ministry providing appropriate support. There are a few challenges in implementing this plan. The first step is for the Ministry to design a procedure of identifying expert teachers, in collaboration with independent organizations to support merit-based selection and avoid nepotism or corruption. Secondly, expert teachers need to be incentivized to participate in this initiative. As expert teachers must dedicate much time and effort in this program, all levels of government and schools should

consider how to best support them in this new leadership role. This includes mechanisms for balancing expert teachers' regular instructional duties with communities of practice, providing stipends for additional work and hours, giving autonomy to their research, and honoring their expertise.

10.7 Conclusion

The pandemic had a debilitating effect on an already struggling education system in Nepal. In our analysis, the critical role that teachers have in ensuring students' learning is hampered by pre-existing challenges of competence, accountability, and mindset, all of which were illuminated and exacerbated during the COVID-19 pandemic. Our three policy recommendations address teacher professionalization, professional development, and communities of practice, by transforming these three challenges into key levers of change. We recognize the ambition of our recommendations for teachers through the lens of the UNESCO report, but also embrace these proposals as timely and appropriate in elevating teacher quality in Nepal, and ultimately improving student learning. Through this chapter, we hope to contribute to the Nepalese body of knowledge in building teacher capacity, rally the MoEST to take action and confront the challenges brought upon by the pandemic, and inspire countries with similar contexts to align with the UNESCO report and reimagine futures of education.

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Appendix

Interview List
Interview #1 (2021, September 18). <i>Secretary of Education of MoEST, Nepal</i>
Interviewee #2 (2021, October 14). <i>High school science teacher</i>
Interviewee #3 (2021, September 26; 2021, October 18). <i>Undersecretary Kafle of MoEST, Nepal</i>
Interviewee #4 (2021, October 20) <i>Education non-profit founder</i>
Interviewee #5 (2021, October 25) <i>Head teacher</i>
Interviewee #6 (2021, November 19) <i>Researcher</i>

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Chapter Eleven. Palestine

Right to Education Throughout Life: Vocational Education as a Tool for Change in Palestine

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Abstract

This chapter examines technical and vocational education in Palestine through the lens of the UNESCO report, and explores the challenges involved in extending educational opportunity through non-traditional lifelong learning. Our research identifies student dropout at the secondary level as one of the key challenges in the education system, and TVET as a powerful site for intervention. The main recommendation proposes project-based learning, holistic assessment, student career counseling, and teacher professionalization practices that can strengthen technical education to be an effective intervention in addressing challenges of dropout and quality instruction.

This chapter aims to explore the Palestinian education system through the lens of UNESCO's recent report *Reimagining Our Futures Together: A New Social Contract for Education* (UNESCO 2021). In this report, UNESCO calls for a global collaborative effort to rethink education with a focus on human rights, empathy, collaboration, and justice in order to secure it as a common and public good. We analyze the Technical and Vocational Education and Training (TVET) program offered by the Palestinian Ministry of Education (MoE) and propose recommendations to advance the program and the larger system towards the UNESCO vision.

One of the key educational predicaments that the MoE aims to address is the drastic rate of student dropout at the secondary level of schooling (UNESCO, 2020). Addressing this loss in

student enrollment and engagement and operating within the context of Palestine's skill-based labor market, we identify TVET as a powerful tool to inculcate lifelong learning for all students. Being at the intersection of the education system and the labor market, TVET has the potential to center the educational needs as well as economic realities of students. Furthermore, because of TVET's non-traditional instruction delivery structure, there is more scope for the curriculum to be rooted in students' realities.

Drawing from interviews with key Ministry of Education (MoE) officials, MoE official documents, and literature about education in Palestine, we identify key curricular and pedagogical gaps in the implementation of TVET, and propose that a focus on applied learning, holistic assessment, and system-wide teacher professionalization will move the TVET program as well as the larger Palestinian education system towards UNESCO's vision.

We begin the chapter by summarizing the relevant ideas from UNESCO's report. Then, we provide a historical and situational overview of the Palestinian education system and the various challenges and reform responses that have emerged in the last few years. Next, we discuss the goals, strategy and implementation of the TVET program within the framework of the UNESCO report, before outlining our recommendations for the TVET program and concluding with the key takeaways from our analysis.

11.1. Vision Outlined in UNESCO's Futures of Education Report

The UNESCO report promotes principles of inclusion, equity, solidarity, sustainability and collective leadership in charting a course towards a reimagined future for the global community through education. In order to reach that reimagined future, the UNESCO report proposes a pedagogy of solidarity and justice, alongside a curriculum that integrates knowledge, values, and

skills. Other key proposals include research that draws from multiple sources of knowledge, teacher professionalization that is a collaborative endeavor, and lifelong learning as a way of life. Palestine's TVET education has the potential to encapsulate the progressive and equitable aspirations of the UNESCO report as it provides continued access to learning throughout life and can address issues of uncertainty in the labor market through its focus on skills training (UNESCO, 2021, p.42).

While the central goal of TVET is to connect learners to the job market, the non-traditional structure of TVET learning allows students to participate in institutional education at any time during their life. This continued access to practical training strengthens the capacity of learners to contribute to the Palestinian society and become problem solvers. The non-traditional way of instruction also appreciates different ways of learning. Furthermore, TVET embodies the values of inclusion in the report as it has historically provided students from marginalized and lower socio-economic backgrounds pathways towards sustainable livelihood (Hilal, 2019).

11.2 Context and Overview of Palestinian Education

11.2.1 History of the Palestinian Education System

Following the historic partition of Palestine into two states (Arab and Jewish) in 1947 and the subsequent wars, two geographically disconnected entities within Palestine emerged: the West Bank and the Gaza Strip, entrusted to the governance of Jordan and Egypt respectively. When the first Ministry of Education and Higher Education (MoEHE) was established in 1994 (after the Oslo Peace Accords were signed in 1993), it inherited an outdated and fragmented education system that faced several challenges, ranging from an unstandardized curriculum to unsafe schools due to dilapidated infrastructure and military occupation targeting school premises and students (MoE, 2017). Since then, the Palestinian government has been

involved in developing a national vision and strategy for education that advances Palestinian interests.

The MoEHE has made significant educational progress since its conception; simultaneously, its efforts remain highly subject to the Israeli occupation and other foreign influences such as donor agendas (Baramki, 2010). In 2017, the first ever Education Act was adopted, and the Ministry of Education became a separate entity from the Ministry of Higher Education.

Today, school systems in the West Bank and Gaza can be divided into three main types: public schools regulated by the MoE, schools established by UNRWA, and private schools. Out of 2285 schools in the West Bank and Gaza, 2095 are government-run — an estimated 1,338,353 children, the majority, are enrolled in the public school system (Shraim & Crompton, 2020; Palestinian Central Bureau of Statistics-PCBS, YEAR).

11.2.2 Overview of Current Palestinian Education System

Below, we explore the key highlights and challenges at each level of the public education system under the jurisdiction of the MoE.

Pre-school Education (ages 0-5; non-mandatory): Pre-school education in Palestine is dominated by the private sector—in 2019, only 3.4% of children were enrolled in government-run preschools (MoE, 2021). Overall, enrollment is low but on the rise, increasing from 58.3% in 2018 to 62.3% in 2019 (MoE, 2021).

Basic Education (ages 6-14; mandatory): While basic education has consistently high enrollment (99.8% overall in 2019), students' academic performance is generally low, especially in STEM subjects. In 2017, the average fifth-grader's performance in the national standardized exams was 45% for science and 42% for math (MoE, 2017; MoE, 2019).

While approximately 74% of teachers in the basic cycle are trained and qualified by the ministry's standards, teachers perform poorly on class observation indicators (MoE 2020).

Secondary Education (ages 15-17; non-mandatory): In the secondary cycle, general enrollment decreases by 22.4% overall, dropping to 86.7% for girls and 68.4% for boys. Primary reasons for dropout include disengagement from learning, exposure to violence, and family's economic needs (UNICEF, 2018).

In the academic track, 62.5% of the students opt into literary studies, with 26% in science (which requires the highest grades to join). The General Certificate of High School Examination—also known as Tawjihi or Injaz—holds utmost importance for college admissions and social status, creating high levels of pressure for students and encouraging teaching to the test.

In the vocational track, which offers four specializations, enrollment is generally low: only 4% of secondary school students opted into vocational education (TVET) in 2019, with 77.2% of those in the industrial track. Only about 7% of TVET students are trained in the labor market—meaning graduates are unprepared for labor market needs (MoE, 2020). Additionally, negative community perception towards TVET prevents enrollment, although the MoE has been working hard to introduce TVET as early as Grade 7 to change mindsets.

Higher Education (ages 17+, non-mandatory): Enrollment in the higher education sector is more than 25% (RecoNow, 2016). The most popular program is Education, followed by Arts & Humanities, Social Science, Business, and Science (PCBS, 2017-2021).

Non-formal Education (ages 14+, non-mandatory): Regulated by multiple Ministries, this sector is primarily focused on literacy (currently 97.4% in Palestine) and a variety of “lifelong learning” programs for adults, such as personal development workshops.

11.2.3 Key Challenges in the Palestinian Education System

Drawing from the overview presented above, we highlight below a few overarching challenges through the lens of the UNESCO report's vision.

Equity and Access: While enrollment in basic education is extraordinarily high, dropout—particularly for adolescent boys—at the secondary stage of education continues to be a challenge for the MoE. Additionally, in 2017, an estimated 46% of special needs children between the ages of 6-17 were out of school (PCBS, 2017-2021).

Relevance of Curriculum: Across all levels, including TVET, the current curriculum is theory-based and primarily depends on written examination as a means of assessment, leading to persistent student disengagement and eventual drop out. This emphasis on theory over practice produces a wide gap between the skills that are being taught and the skills required in the labor market, a gap highlighted as a global concern by the UNESCO report (p. 42).

Teacher Professionalization: Teacher motivation is perceived to be generally low (Sous, M., Director of Training, personal communication, November 2021), and classroom observation data indicates that most of the pedagogy is still teacher-centric (MoE, 2020). Further, the teacher professionalization system does not provide mentorship, coaching, or opportunities to collaborate with each other, which are key components of the UNESCO report's recommendations (p. 81); instead, only principals and inspectors evaluate teacher work.

Inclusive Vision-building: The UNESCO report's vision of governance is inclusive and participatory (p.102). In the Palestinian MoE, collaboration and partnerships are still limited to higher level offices in the ministry and have not materialized across other levels of the system. Teacher and student input are not typically part of decision-making processes at any level (Hroub, H., teacher in Palestine, personal communication, December 2021).

11.2.4 Palestinian MoE's Current Policies in Response to Challenges

In the following section, we examine how the MoE's response in addressing issues of access, teacher evaluation, and research across educational levels aligns with the UNESCO report.

Strengthening Research Capacity: The MoE's push towards data-driven decision-making has resulted in some impressive developments: the establishment of the new Education Research and Development Center aimed at policy-oriented research, as well as capacity-building programs for rigorous monitoring and evaluation. These reforms align with the UNESCO report's emphasis on high-quality statistics as a powerful tool for policy making (p. 127). However, there is a lack of focus on the learning sciences as part of the research agenda, as well as an opportunity to prioritize diverse, indigenous and marginalized sources of knowledge in research (p. 126).

Strengthening Teacher Monitoring: Key actions in this area have included improving the supervision system and evaluation mechanisms as well as providing digital literacy training, all of which indicate a top-down approach to teacher professionalization. Such an assessment-driven system could potentially increase teacher burden without providing the necessary support, as well as exclude teachers from meaningful decision-making, both of which are important considerations for the collaborative model of teacher professionalization recommended by the UNESCO report (UNESCO, 2021, p.88; OECD, 2019).

Diversifying Education Channels for Equitable Access: Recognizing the issues of dropout and access, the MoE is committed to providing different channels for learners to access education: chief among them are, TVET, and, more recently, a push towards online learning through a program called Thanawiya Online (High School Online) (R. Shunnar, personal communication, September 2021). Although there are difficulties with implementation, these efforts are aligned with the UNESCO report's emphasis on equitable access as well as technology as a tool to promote equity (p. 21, 34).

Curriculum: In the last few years, the MoE's curriculum department has worked on reviewing the textbooks for Grades 1-9, with a goal to integrate human rights, environmental concerns and life skills study as well as the Palestinian identity into the curriculum (Zaid, T., department of curriculum, personal communication, November 2021) — which are in alignment with the UNESCO report's reimagining of the role of curricula (p. 64). However, a content analysis of these textbooks in 2018 showed that there has been little integration of these concepts into the curriculum, indicating an opportunity for better implementation of these goals (MoE, 2019).

It is clear from an overview of current reforms that the MoE has made considerable progress in access, research, teaching capacity, and equity through its policies; that said, the tensions highlighted in the reforms above show us that there are still a few key opportunities that we might leverage to advance the system towards UNESCO's vision.

- Emphasizing the learning sciences in the research, curriculum development, and teacher training efforts.
- Collaborative vision-building, especially in teacher training and professionalization.
- Connecting the curriculum and assessment to the reality of young Palestinians; ensuring that students graduating have the skills that are essential to the labor market.

Given these three opportunities for advancement, the secondary cycle of education stands out as a key area for reform: the public school system struggles to retain students at the secondary level, as reflected through data on student dropout, and many of those who stay in school typically find themselves ill-prepared for the labor market. In this context, as noted in the introduction, the TVET program at the secondary level, which was conceived partly as a response to these challenges, offers the opportunity to directly address the labor market issue while exploring alternative curricular, teaching, and assessment methods. Below, we further expand on the history, strategy, and implementation of TVET in Palestine.

11.3 History, Implementation, and Impact of TVET in Palestine

Following the 1993 Oslo Accords, the first Ministry of Education inherited a diverse and fragmented TVET system that faced many challenges. The first TVET strategy was developed in 1999 and later revised into the National TVET Strategy in 2010 (MoE, 2010). The overall objective of the strategy is to create a “knowledgeable, competent, motivated, entrepreneurial, adaptable, creative and innovative workforce in Palestine” that will contribute to poverty reduction in addition to social and economic development (UNESCO-UNEVOC, 2012).

Currently, the Ministries of Education regulate and accredit vocational and technical education institutions while the UNRWA regulate their own programs; the non-formal TVET programs are regulated by the Ministries of Labor and Social Development. TVET is governed by a set of regulatory frameworks that encompasses national and sectoral strategy, legislation pertaining to labor and education, and UNESCO-UNEVOC’s work-based learning strategy. A National Qualification Framework (NQF) —whose policies would classify occupation and allow for mobility of TVET students within the entire education system —is still missing, despite being a priority in the sector plan (ETF, 2020).

11.3.2 Financing

Financing is one of the most pressing supply side factors in ensuring efficient delivery of TVET. Approximately 22% of total government spending is allocated to education at all levels: schools, universities, and TVET. In 2018, the government allocated only 0.5% of its general budget to TVET which is below the international standard (ETF, 2020). Based on the estimates of MoE’s TVET department, the MoE needs around \$5 million to construct a TVET school, which is more expensive than a typical secondary school (Badran, S. personal communication, December 2021). Furthermore, for TVET to

realize its potential in Palestine, further financial engagement from the government and public-private partnership is necessary (UNDP, 2018). Because of a lack of resources and the traditional education system absorbing the majority of the education budget, TVET is not a top national priority for investment, despite its potential to address issues such as high youth unemployment. TVET development has mainly been supported by non-governmental sources of funding that include: national and international grants and donations, income-generating activities, local community support and individual contributions. It is important to note that the financial participation of students through fees is considered to be an important aspect of TVET financing (UNESCO-UNEVOC, 2015). This is justified in the National TVET Strategy since TVET graduates are considered to benefit from higher income once they graduate. Students can access alternative funding like loans and scholarships if they are unable to pay the fees (UNESCO-UNEVOC, 2012).

11.3.3 TVET Structure

TVET is provided by the Ministry of Education (MoE), the Ministry of Labor (MoL) and the Ministry of Social Affairs (MoSA), UNRWA, and non-governmental organizations (NGOs). Each of these institutions has separate jurisdictions as they run the 11 technical colleges in Palestine separately; therefore, access to TVET education is provided at different points during the life of a student and in different settings (World Bank, 2006; ETF, 2014). There are also many private providers of TVET, both for profit and non-profit. These institutions offer programs in three ways: formal (leading to official certification within the formal education system), non-formal (through the Vocational Training Centers-VTCs within the MoL, MoSA and private centers), and informal (training directly in the workplace). This chapter focuses on formal TVET offered and managed by the MoE.

Formal TVET programs include TVET in vocational secondary schools and vocational units in general education schools. Vocational schools are available in the West Bank (18 schools)

and Gaza (3 schools) and are run by the MoE and certain NGOs. They run programs in four specializations: industrial, home economics, agricultural and hospitality (ESSP, 2020).

11.3.3.1 Secondary Vocational Schools (SVS)

There are currently three tracks available for students in SVS (the equivalent of Grade 11 and 12): Ordinary Track, Certificate of Professional Competence Track, and the Apprenticeship Track.

Ordinary Track: Throughout Grades 11 and 12, students pursuing this track study practical and academic subjects in their TVET specialization without any work-based learning experience. Their practical experiences are limited to the school workshop led by their specialized teachers. At the end of the two years, they have to pass the Tawjihi alongside students in the academic track; once they pass, students are qualified to enter university or join the labor market. All TVET students begin in this track, but if they do not pass their academic subject exams at the end of Grade 11, they are moved to the Professional Competence Track (Hilal, R., personal communication, December 2021).

Certificate of Professional Competence (CPC) Track: To reduce student drop out, the Palestinian Ministry of Education approved a new amendment to the Secondary Examination system in 2018 and introduced a new track to the TVET program (Samara, 2021). In this track, students are no longer expected to pass Tawjihi, but graduate with a Certificate of Professional Competence in the field studied in their SVS. This track is also known as the Project-Based Learning track because students are expected to pass separate TVET subject exams and present a project to be graded by a teacher committee as part of their graduation requirement. Graduates of this track can move to the labor market or vocational and technical colleges. They are not qualified to pursue university or further academic study except if they choose to eventually sit for the Tawjihi exams in the academic subjects (Samara, 2021).

Apprenticeship Track: This track is for students with lower academic achievements than those in the first and second track. Here, students are expected to enter the labor market while studying theoretical TVET subjects in school. Alongside taking

classroom lessons, students are also placed with authorized partners in the private sector that have signed formal work contracts with the MoE (Samara 2021). Upon graduation, they obtain an Apprenticeship Certificate signed by the MoE and the MoL. Schools offering this track are expected to find private partners that would implement this program and train them. To date, only five SVS in Palestine offer this program (Badran, S., TVET Staff, personal communication, December 2021).

11.3.4 MoE Strategy 2017-2023

In 2017, based on a new National Policy Agenda of the National Development Plan, the MoE focused on aligning the TVET programs with the needs of the labor market in Palestine, ensuring equal opportunities for employment, increasing the number of TVET institutions while also increasing the TVET enrollment of students coming out of Basic Education (ESSP, 2017). These reforms led to the development of the CPC Track and Apprenticeship Track as additional options for students to reduce dropout.

Alongside that, MoE also incorporated TVET units in basic education from grades 7-10 to expose students to vocational subjects early on. This new program covers 3 vocational modules every year in two sessions a week for grades 7-9 (Badran, S., personal communication, December 2021). For grade 10, the Ministry introduced a vocational stream that is a mix between academic subjects and 7 vocational modules. Students graduating from this stream are eligible to continue in the secondary academic stream if they choose to at the end of Grade 10 and if they have the required grades (UNESCO LMIS, 2018). It is important to note that the TVET modules in basic education are not taught by specialized teachers and that workshops are not available for practical experiences. Teachers in basic education schools are trained to implement these TVET units and are provided with guidebooks and resources to use in school (Badran, S., personal communication, December 2021).

11.3.5 Impact of TVET Reforms

Access and Equity: Enrollment in vocational secondary education has increased in the past years; yet it remains limited to not more than 5% of secondary students. While the enrollment of female students increased by 26% between 2017-2020, and males by 23% in the same period, a gender gap still persists as the total number of female students enrolled in 2020 was 943 while the number of male students enrolled was 3532 (ETF, 2020). This can be attributed to social and cultural reasons as vocational education is culturally deemed to be a masculine path. In addition, social stigma depicts it as a track for weaker students who could not attain the required grades to be accepted into the academic track (Hilal, 2019).

Additionally, the fragile context of Palestine has limited the long-term impact of TVET due to the challenges that the occupation poses, especially in Gaza. The occupation has progressively led to the decline of employment opportunities through economic barriers that prevent the moving of goods across borders and restrict the creation of new jobs (United Nations Conference on Trade and Development, 2019). Further, the occupation imposes licensure blockages to build TVET schools in marginalized areas, limiting the capacity of the MoE's reach (ETF, 2020).

Internal Efficiency: In order to examine the internal efficiency of TVET, we examine the graduation rate, drop out and teacher qualification data reported by the MoE's monitoring and evaluation department. Results reveal a decline in graduation rate from 2017 to 2019 in agriculture, hotel, and home economic specializations; in agriculture, for example, graduation declined from 80.7% to 72.3% (PCBS). In contrast, the total dropout rate from the TVET program has remained at 1.5% from 2018 to 2019 (MoE, 2020)—indicating that while students are mostly staying in the program, not all of them are passing the course. Additionally, the M&E department reported a low percentage (15%) of qualified vocational education staff for the academic year of 2019-2020. This indicator was not tracked in prior reports. This lack of teacher capacity in TVET is also a key challenge as there is no specific teacher training framework for

TVET in Palestine, as there are for other levels of education (UNESCO-UNEVOC, 2012).

External Efficiency: TVET programs are designed to prepare students for work. The only indicator that the MoE tracks when it comes to external efficiency is the number of students trained in the labor market as a percentage of the total number of TVET students—only 7.26% in 2020 (MoE, 2020). UNESCO recommends key indicators that allow governments to assess the external efficiency of TVET programs and indicate their relevance with regards to the skills and competency requirements by the labor market (UNESCO, 2014). The MoE confirmed that they do not have any data that tracks their TVET students after graduation and not much is known about their integration into the labor market.

11.4 TVET: Alignment and Connections to UNESCO's Futures of Education

While the MoE's focus on TVET is reflected in the UNESCO report's call to "enjoy and expand the educational opportunities that take place across life and in different cultural and social spaces" (p. 14), the idea that schools are a place solely for academic learning dominates across society. Thus, many teachers and students perceive TVET as an alternative route to re-entering the academic stream, which is culturally viewed as a "lesser" form of education. This tension indicates an opportunity to rethink the implementation of TVET within the cultural context of Palestine. Moreover, the Ordinary Track that includes more than 80% of TVET students is rooted in standardized testing and rote memorization (Hilal, 2019). In working towards an equitable future, curricula and assessments should encompass and support pedagogies that are "collaborative, interdisciplinary and problem-posing" (p.61) rather than high-stakes examinations that leave students with ultimatums.

Overall, the MoE's vision for TVET is commendable; however, a deeper look at the reform reveals assessments and teacher-centered pedagogies that perpetuate social stigmas and limit the

potential of TVET to truly provide learning and economic opportunities to the youth.

11.5 Recommendations

Our policy recommendation for advancing the Palestinian education system towards the UNESCO vision addresses the realities of the Palestinian context, where aspects of the occupation, resource constraints and the cultural view of education determine the parameters of implementation.

To make TVET accessible, equitable, and efficient, and to drive larger change in the educational system, we propose a reform strategy that addresses learning at both basic and secondary levels of the public school system in Palestine. Although curriculum design is one of the central issues in TVET delivery, we propose a comprehensive reform framework as our assessment of TVET shows that effective implementation will require broader system-wide effort, especially to shift cultural mindsets around non-traditional learning.

11.5.1 Theory of Change

Our recommendations are rooted in the idea that if TVET is integrated into the basic education system and restructured at the secondary level with the appropriate teacher support and professionalization in place, then the student's learning experience becomes more relevant to their reality, prepares them for the labor market, and discourages dropout at the secondary level. Below is a breakdown of how the change can be envisioned:

↳ project-based learning is integrated earlier in the school system (grade 7-10) with appropriate support and training for teachers, and

↳ TVET is restructured at the secondary level with the support of teacher training and industry experts to include project/work based learning and professional skills development,

↳ thus creating more capable teachers and independent learners with skills necessary in the job market; and providing students more pathways to higher education and employment,

↳ leading to improved student experience, performance, and economic outcomes,

↳ resulting in a cultural shift in mindset towards applied learning and diverse professions,

↳ reducing student drop-out,

↳ eventually leading to improved economic outcomes for students and families.

Below, we lay out our recommendations for three levels: basic, i.e., 7th to 10th grades; secondary, i.e. the last two years of schooling where students gain specialization in a particular discipline or track within TVET; and system-wide reform, i.e. reforms across levels of education required to make our vision a reality.

11.5.2 Basic Education: Grades 7-10

Under the current system, students from grades 7-10 are exposed to three vocational modules. We recommend restructuring this vocational preparatory track and introducing project-based learning (PBL) into all academic subjects instead. PBL will allow students to work on real issues that affect them and therefore will make the curriculum more relevant to students' reality, preparing them at the same time for the practical nature of work in TVET (Blumenfield et al., 1991). Research shows that students learn better through learning tasks with real applications (Suhendi & Puwarno, 2018), and also that such tasks can build student agency and successfully create student leaders in different educational settings. Any of the activities developed in the TVET introductory courses in grade 7-10 can be easily integrated into the academic subjects through a PBL approach.

Along with redesigning the current pedagogy, the other essential component of the reform effort for Grades 7-10 is introducing holistic assessment. Holistic assessment requires focusing on the *quality* of students' work, through methods such as self and peer assessment, group presentations, or a comprehensive portfolio assessment where competencies beyond summative grades on written tests are emphasized. Using holistic assessment has been shown to improve student learning outcomes, and more importantly, also lead to better learning experience for students (Sadler, 2009). Furthermore, it has the potential to change how teachers value student output.

In sum, the introduction of PBL and holistic assessment at the basic education level has the potential to lay the foundation for a shift in cultural mindset surrounding what learning should be and make diverse non-academic career options acceptable to parents and the larger school community. At the school level, by making the curriculum relevant to children's learning and allowing them to exercise agency in their learning, student dropout as a result of academic disengagement is likely to decrease.

Additionally, in Grade 10, as students make decisions regarding the last two years of schooling, we recommend investing in high-quality career counseling. Career counseling services at this level will emphasize student aptitudes and prioritize counseling for different career options. Research has shown that career counseling is integral to future-planning especially for students in difficult and uncertain contexts (Nota et al. 2014). Currently, since the Tawjihi is a central tenet of the Palestinian education system, students opt into the Ordinary TVET track just to be able to take the exam. However, with timely and effective career counseling at this level students and parents across socioeconomic backgrounds can be aware of different career opportunities that are not determined by grades in the Tawjihi.

Thus, the reforms at the Grade 10 level will continue to address curriculum relevancy and cultural mindset about exams and career, while adding a layer of intentionality about career planning. Successful dissemination of project-based instruction and holistic assessment at the basic education level would also require a considerable investment in teachers training:

specifically, around competencies in PBL instruction and implementing holistic assessment. Teachers will also need to be supported with the necessary manuals and resources, including maker's labs and workshops to support practical learning experiences. The system-wide reform accompanying these efforts will be covered in greater detail in a later section.

11.5.3 Secondary level

At the secondary level, where TVET officially begins, we propose that the “Ordinary Track” and “Professional Competence Track” be merged into a single, personalizable track. This new track would incorporate work-based and project-based learning, include modules on entrepreneurship and professional skills, and offer academic coursework for certain vocational subjects on the Tawjihi. The rationale behind merging the tracks is twofold: one, to ensure that all students entering the TVET track are able to partake in practical learning and develop the professional skills needed to succeed in the labor market; two, to provide students the chance to access the Tawjihi and university if they wish to.

To elaborate on the first goal, we have seen that applied learning is an effective method of learning in TVET (UNESCO, 2021, p.42). In countries such as Singapore, where work-based learning has been used to complement academic coursework, TVET education is one of the main drivers of foreign investment and economic growth in the country (Yeo, 2015). UNESCO's International Center for TVET also recommends the integration of work and life skills in a rapidly changing job market (UNESCO-UNEVOC, 2018). In addition to taking work-based learning modules, students will also be required to complete a professional and personal skills course and portfolio in order to graduate. This will allow students to develop skills such as interviewing, writing a CV, communication and entrepreneurship, thus increasing their employability (Arshad, 2018).

The second goal—increasing access to higher education—ensures that students can still go to university for academic study if they wish to. The idea is to recognize and accommodate the

different aspirations and goals of the students in the TVET track (UNESCO, 2021, p.42). Personalizing this curriculum is important for cultivating student agency as it facilitates independent decision-making for students, based on their interests and goals. Self-designing ability through personalization also allows students a path forward for lifelong learning in varied contexts (IBO, 2021).

As for the Apprenticeship Track, research shows that apprenticeship-based programs in schools are more effective at increasing the employability of students compared to vocational programs that are only school-based, because of their ability to prepare students for the reality of the labor market (de Amesti & Claro, 2021). We recommend therefore that the current structure of the Apprenticeship Track be retained for two reasons: one, it presents an opportunity to continue learning even for students who have urgent economic or special learning needs. Secondly, not enough is known about its impact and implementation as it has only reached 5 SVS so far. As we learn more about the program, more detailed policy recommendations will emerge.

Finally, for TVET teachers at the secondary level, we recommend developing expertise in specialized vocational subjects for teachers and collaborating with higher education and vocational institutions to redesign teacher education. We need specialist trainers to have work experience in the industry and the private sector— and emphasize those experiences in vocational teacher education.

11.5.4 System-wide Reforms to Support TVET Recommendations

One of the key challenges in the delivery infrastructure for TVET is inadequate human resources and not having enough specialized teachers to disseminate effective instruction. The UNESCO report recommends that teachers be provided “recognition, preparation, support, resources, autonomy, and opportunities for continued development” in order for them to be effective (UNESCO, 2021, p.22). These provisions have to be system-wide in order to achieve teacher empowerment.

Restructuring the hiring process and providing professional development opportunities across all levels are key to building teacher capacity.

Teacher Hiring: In restructuring hiring processes, two priorities emerge: one, promoting holistic assessment at the hiring level; and two, strengthening teacher education prior to the hiring phase to ensure that high quality candidates are applying for teaching positions. If issues of merit and teacher education quality are addressed prior to hiring, then recruiters can focus on teaching skills and competencies to assess teacher candidates. Currently, teachers are hired through a written test, which is the primary mode of assessment for selection of public-school teachers. This form of evaluation does not indicate the teacher's teaching ability and professional values (UNESCO, 2021, p.90). Just as we recommend that teachers use holistic assessment to evaluate student performance and learning, we also recommend the same for teacher recruitment.

Additionally, the MoE should prioritize encouraging and ensuring high-quality applicants for teaching positions. For instance, in Peru, where sustained reform and improved student performance are rooted in teacher training, the government provides economic incentives in the form of scholarships to top students in higher education who aspire to be teachers (Saavedrea and Gutierrez, 2020). Such reforms that create merit-based opportunities in the pre-hiring phase can support smart hiring decisions and help teacher recruiters focus on other competencies in teacher candidates.

Professional Development Reform: Following the teacher education and hiring phase, the reform also needs to address continued professional development and advancement opportunities. We recommend institutionalizing the structures of teacher coaches and professional learning communities (PLCs).

Introducing coaching to the teacher management system in Palestine has the potential to revitalize and motivate the teaching workforce. MoE inspectors currently fulfill supervisory roles for teacher evaluation and management; in order to institutionalize a culture of continuous professional development, we recommend changing supervision into coaching that supports

teacher learning and improvement. A useful reference is the case of Colombia, where teacher resistance to evaluation was overcome by assigning teacher coaches and supervisors as mentors who provide feedback as opposed to monitoring. In this model, facilitators train tutors, tutors train teachers, and teachers support each other. This cascade model helped usher large scale professional development reform in Colombia as it was a teacher-centered network design prioritizing teacher trust and long-term support (Raubenheimer, 2020).

Furthermore, these practices can be enhanced through professional learning communities (PLCs), whereby teachers can come together to share best practices, collaborate on problem-solving, and learn from each other. Studies have shown that PLCs have a positive correlation with systems-wide improvement and increase in teachers' collective capacity (Harris & Jones, 2010). This aspect is especially relevant to teacher professionalization in Palestine, where teacher and student input is yet to play an important role in decision-making and vision-building.

In sum, professional development should be seen as a continuous initiative to improve rather than a one-off event used for teacher evaluation; further, continuous learning needs to be ingrained into school culture. In thinking towards the implementation of these ideas, Palestine could reference Singapore's bounded autonomy approach, where reform has helped teachers develop their own teaching philosophies and therefore exercise autonomy in their profession (Yeo, 2015). As professional development becomes a regular component of school culture, teachers will become “intellectually engaged learners themselves”, further being recognized as knowledge producers and key stakeholders in social transformation (UNESCO, 2021, p. 90).

11.6 Conclusion

“60% of high school students in lower middle-income countries and almost 90% in low-income countries leave school before

completing the secondary cycle. Such a dramatic loss of youth potential and talent is unacceptable.” (UNESCO, 2021)

In the State of Palestine, very few children in basic education are excluded from school, but this is not the case for older students at the secondary level. Despite all the challenges and since its conception in 1994, the MoE has made significant progress in strengthening its structural and research capacity, improving teacher education, reforming the curriculum and diversifying education channels for equitable access. Within this context, TVET has emerged as a potential route to produce a competent, entrepreneurial, and innovative young workforce in Palestine that will contribute to poverty reduction in addition to social and economic development. Yet, it faces many challenges in implementation, including negative cultural perception, outdated curriculum and teaching approaches, inequitable access, and low enrollment.

In order to make TVET accessible, equitable, and efficient, we have proposed a reform strategy that addresses learning at both basic and secondary levels of the public school system. By introducing applied learning and holistic assessment approaches, while concurrently working to address the cultural perception of TVET in Palestine, we envision that TVET students will become lifelong learners and contributors to the Palestinian economy.

There are, however, a few important considerations determining implementation feasibility of our reforms. Our proposed improvements in curriculum design are reliant on teacher efficiency; however, cost and resource barriers in a crisis context may pose greater challenges to implementing the system-wide reform that would result in teacher efficiency. Additionally, implementation planning will also require a focus on research and data collection. The MoE will need to be involved in regular data collection that will provide more insight on the different TVET programs offered and identify challenges in access, equity, and efficiency. A notable indicator that is currently missing, for example, is student integration into the labor market

after graduating from TVET. It is important to bear these challenges in mind as we move towards implementation.

Finally, keeping young people in school and ensuring their access to lifelong learning is a collective effort. It is here that the UNESCO report's call for inclusive vision-building is particularly relevant: successful education reform requires policymakers, teachers, school leaders, students, and caregivers to come together. Through our chapter, we envision that a stronger TVET program will create a stronger, more inclusive public school system, thus ensuring that every child in the State of Palestine can fully realize their rights and potential.

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Chapter Twelve. Philippines

Reimagining School Environment and Teacher Development in the Philippines

Jeffery Ahn, Bria Han, Yu-Ping Mao and Cece Tang

Abstract

This chapter first examines the educational context and historical education reforms in the Philippines. By using the framework of UNESCO's recent report *Reimagining Our Futures Together: A New Social Contract for Education* (UNESCO 2021), the study focuses on recommendations in teacher professional development and school environment, including school infrastructure and student well-being. The chapter begins with a historical overview of the K-12 education system and a problem identification which focuses on the perennial issues. The chapter also draws on exploratory and qualitative approaches through literature review, focus group interview, and logic models to provide policy recommendations that allow the Philippines' future education to be aligned with the vision of UNESCO's report. The central argument is to safeguard schools from natural and human-caused risks and provide more cohesive teacher professional development so that learners can thrive and flourish as competent citizens.

12.1 Introduction

Since its independence in 1946, the Philippines has made much progress in increasing access to K-12 education through a series of reforms. Stemming from the national strategic mission to reduce poverty and boost national competitiveness (World Bank Group, 2016), the current administration has focused on: 1) building physical and human capital through the *Build Build Build* reform; 2) addressing the nation-wide malnutrition among

Filipino children through the *Malnutrition Reduction Program* (MRP); and 3) improving access to quality education through the *Sulong Edukalidad* reform (National Priority Plan, 2021).

However, challenges continue with millions in deep poverty, inequity in both social-economic status and education, and on top of that navigating through the COVID-19 pandemic. According to the World Bank (2018), natural disasters, political diaspora, and governmental corruption have all helped create some 18 million poor and vulnerable households in the Philippines.

To address these challenges, the Philippines has embarked on an “Education for All” overhaul, ranging from designating English as the primary medium of instruction to extending compulsory schooling from K-10 to K-12 and mandating free preschool. While neighboring East Asian nations have gained substantial economic benefits from providing universal access to basic education (Hanushek & Woessmann, 2016), preparing students to flourish in a future world of complexity and uncertainty requires more than just expanding access. The *Sulong Edukalidad* reform shifts the Philippines’ education focus from access to quality. Analyzing the reform’s design and outcome, this chapter proposes that improving teacher education and school environment is critical to success.

The launch of the 2021 UNESCO’s report *Reimagining Our Futures Together: A New Social Contract for Education*, calls the world to reimagine and renew the quality of education for all children. This report proposes a new social contract that’s based on the right to receive quality education for all and focuses on creating harmonious relationships with each other, the planet we live on, and technology. While the report prioritizes five pillars: pedagogies, curricula, school environment, teacher development, and collaboration and partnership, our findings suggest that school environment and teacher development are at the heart of our understanding of sustaining education quality in the Philippines.

12.1.2 Road Map

The study focuses on the current *Sulong Edukalidad* reform and the analysis will be situated within the context of UNESCO's report. The team will analyze the structure of the Filipino education sector, identify its key challenges, and provide an overview of the *Sulong Edukalidad* reform design and results. Using four criteria from Bardach's (2019) policy analysis framework, the team identifies two key areas as the focus of our study: school environment and teacher development programs. This chapter defines the school environment as including physical spaces and student well-being, while teacher development will encompass initial teacher education (pre-service) and ongoing professional development (in-service). Finally, the team makes recommendations on how the Philippines can build on its existing assets to improve education quality.

12.1.2 Research Methods

Methodically, the team uses literature reviews and collected data through focus groups interviews. Specifically, the team conducted interviews with the DepEd's official officers and directors from different offices (the Education Futures Programme, Office of the Secretary, and the Bureau of Education Assessment), two nonprofit leaders (LETS Read and Valor Global Foundation), and one advocacy group leader (PBE) to better understand their priorities and interests. In addition, the team also held focus group interviews with teachers and students regarding teacher development, school infrastructure, and student experiences.

Statistical data from the Department of Budget and Management and the Philippine Statistics Authority (PSA) was then used to identify root causes. Further, with Bardach's (2019) eightfold policy analysis framework, the team identified key areas of improvements, and generated criteria indicators to select the two proposed focus areas. Weiss' (2001) theory of change framework is also adopted to evaluate if intended goals had been achieved. Moreover, the team developed logic models

to examine existing programs, which visualizes the assumptions and theory of action.

12.2 Context

12.2.1 General Overview of Education in the Philippines

The Philippines is an archipelagic country composed of 7,641 islands with a population of 100.98 million people and 28.2 million students according to DepEd (2021). This special geographic feature creates unique challenges in fulfilling the educational needs of all children in different islands throughout the country. In addition, the country is also susceptible to natural disasters including typhoons, earthquakes, and floods. Between 2007 and 2012, more than 11 million students were impacted by disasters, and 8,472 schools were used as shelters during disasters (Save the Children, 2015). These disasters make it much more difficult for the system to meet basic education needs. The Philippines is also known for its diversity; there are more than 170 Indigenous languages spoken in the country, though the main instructional languages in the classroom are Filipino and English. This produces a barrier between teachers and students when students do not speak either Filipino or English and vice versa. The Philippines Statistical Authority reported that 23.7% of the population in the Philippines lives in poverty as the current unemployment rate is 7.7% (Philippines Statistics Authority, 2021).

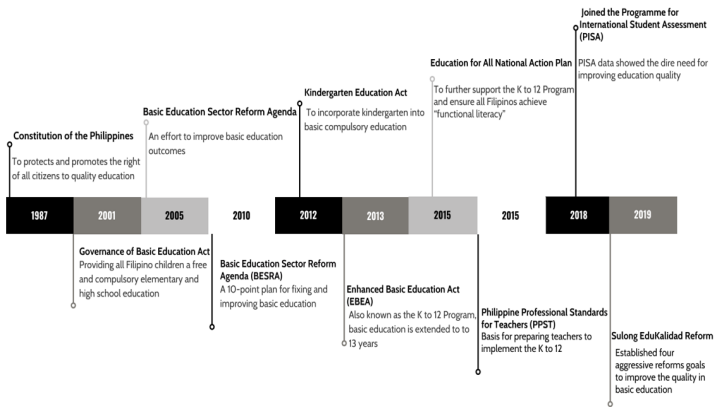
Despite many challenges created by its geography, culture, and low living standard, the Constitution of the Philippines upholds the education system to ensure all children's rights to education across the age span. In the early 1990s, there were three main agencies that underlie the education sector: the Department of Education, Culture and Sports (DECS) for basic education, the Technical Education and Skills Development Authority (TESDA) for Technical and Vocational Education and Training, and the Commission on Higher Education (CHED) for tertiary education. In 2001, the Governance of Basic Education Act was passed, which shifted the duties of the Department of Education, Culture, and Sports to only education. The other four educational agencies include:

- **Early Childhood and Care Development Council** (ECCD Council) facilitates programs in nutrition, health, and early childhood
- **Department of Education** (DepEd) oversees basic education
- **Technical Education and Skills Development Authority** (TESDA) administrates technical vocational schools
- **The Commission on Higher Education** (CHED) supervises the quality of higher education

12.2.2 From Enhanced Basic Education Act to Sulong EduKalidad

Since the Basic Education Act, several more have been established to support the basic education system, such as the Kindergarten Act of 2012 to regulate the school attendance of kindergarten for all five-year-old children. Figure 1 provides the timeline of the important education reforms and acts since 1987. The established acts allowed the Philippines to focus on developing “productive and responsible citizens equipped with the essential competencies, skills and values for both life-long learning and employment” (*Republic Act No. 10533 | GOVPH*, n.d.). These reforms also pushed the central government to increase the national education budget. Although the Philippines’ educational spending has increased more than 10.75% on average since 2010, the country still spends less on education than many other nations, with education spending only comprising 2.6% of its GDP (World Bank Group, 2016). In 2017, the Department of Education published a Declaration of Vision and Agenda to illustrate the urgent issues in education, which include poverty, inequality, opportunities, climate change, and illegal drug usage.

Figure 1 *Detailed Timeline of Basic Education Reforms in the Philippines*



The Philippines has made considerable progress in allowing students access to basic education throughout the country. The enrollment increased from 24.92 million in 2016 to 27.03 million students in 2019, an 8.45% percent increase (DepEd, 2021). Despite the challenges that COVID-19 has brought to the Philippines, total enrollment numbers increased from 27,290,114 (SY 2019-2020) to 28,219,623 (SY 2021-2022) (DepEd, 2021). More Filipino children now have access to education than ever before. However, in the 2019 PISA assessment, the Philippines ranked last in math and science, and second to last in reading among the 78 participating countries (OECD, 2018). In 2018, the Philippine Chamber of Commerce and Industry found that senior high school graduates lacked preparedness to work in the labor market (OECD, 2018). These two pieces of evidence demonstrated that students were not learning the necessary skills to enter the workplace and become productive citizens after graduating from basic education. To address these problems, the DepEd initiated a national campaign, the *Sulong Edukalidad*, in 2019.

12.3 The Reform Overview

12.3.1 The Framework of Sulong Edukalidad

The intended goal of the *Sulong Edukalidad* reform is to transition from expanding access to improving the quality of education in the Philippines. Key components of the reform focus on four areas in the public education system: 1) K-12 curriculum; 2) Learning environment; 3) Teacher development; and 4) Engagement of stakeholders (DepEd, 2019).

Table 1. *Sulong Edukalidad's four pillars and alignment with UNESCO's Future of Education*

Four Pillars of Reforms for Quality Education (KITE)	UNESCO's Futures of Education
K to 12 curriculum review and update	Pedagogies of Cooperation & Solidarity Curricula & the Evolving Knowledge Commons
I mproving environment learning	Safeguarding & Transforming Schools
T eachers' upskilling and reskilling	The Transformative Work of Teachers
E ngagement of stakeholders for support and collaboration	Education Across Different Times & Spaces

The reform agenda proposes that if the Philippines evaluates and updates its K-12 curriculum, improves schools' facilities and culture, provides high-quality training and work conditions for

teachers, and engages all social sectors to support education, then the Philippines will increase education quality (DepEd, 2019). The reform also provides strategies to achieve the four components. When evaluating and updating the curriculum, the DepEd laid out key tenets, such as emphasizing 21st-century skills, competencies in STEM fields, and Filipino culture and identities (DepEd, 2019). The school environment construct proposes that if the schools have advanced technological facilities, nurturing culture, ample textbooks, and other necessary resources, students can study more effectively. The third construct states that providing teachers with improved professional development programs and higher salaries, teachers can deliver better teaching to students. The stakeholder engagement construct proposes that if business, nonprofit, communities, and multilateral organizations can all contribute to education, the strengthened learning ecosystem will have an enlarged positive influence.

12.3.2 The Reform Outcomes

Over the past two years, the *Sulong Edukalidad* reform has achieved various outcomes under the four pillars. For the K-12 curriculum, the DepEd designed the most essential learning competencies (MELCs). Future curriculums across all subjects are required to incorporate these competencies as pedagogical goals (DepEd, 2020). During the pandemic, the DepEd developed two distance learning curriculums based on the MELCs—the self-learning modules (SLM) and the learning delivery modalities (LDM) (DepEd, 2020).

To improve the school learning environment, the reform disseminated 21.8 million textbooks to students and completed phase one of a nationwide school infrastructure project (DepEd, 2020). Eventually, the national school infrastructure project strives to reduce the shortage of around 66,800 classrooms across the country (Public-Private Partnership Center, 2019).

Also, the reform embarked on transforming the National Educators' Academy of the Philippines (NEAP) (DepEd, 2019) to achieve more effective design, development, and delivery of professional development for teachers and school leaders. The

reform expanded staffing and regional teacher education centers under NEAP (DepEd, 2020) and commanded NEAP to supervise and integrate all professional development programs by setting strict quality standards (DepEd, 2020). The recent establishment of the Teacher Education Excellence Act (Senate Bill No. 2152) promises promotion opportunities and salary increases for aspiring teachers (Ismael, 2021).

Regarding enhancing stakeholders' engagement, the DepEd (2021) convened the Philippines Forum of Quality Basic Education. Various government departments, civil society organizations, private firms, and multilateral institutions joined the forum to collectively address unresolved issues of education quality (DepEd, 2021).

12.4 Key Areas of Improvement

Since 2019, the Philippines' reform has pushed for higher education quality by improving curriculum, teacher development, school facilities, and stakeholder engagement. This section will explain why we recommend school environment and teacher development as the main focuses of this chapter. It provides an overview of existing challenges in the school environment and teacher professional development in the Philippines. Later, it underscores the importance of these areas by displaying successful examples worldwide. Finally, this section extracts related ideas from the Futures of Education report and concludes that improving school environments and teacher development are critical for *Sulong Edukalidad*'s success and its alignment with UNESCO's visions.

Criteria for Focusing on Improving School Environment and Teacher Development

The UNESCO report discusses five areas— pedagogy, curriculum, teachers, school setting, and stakeholders— which encompass the four pillars of the *Sulong Edukalidad* reform. Thus, using Bardach's (2019) eightfold policy analysis framework, the chapter compares five potential areas of focus based on four criteria: effectiveness, equity, feasibility, and cost.

The reason for focusing on the school environment is that a well-equipped, safe, and caring school environment is the foundation of all educational activities (UNESCO, 2021). Similarly, teacher development is equally critical as training teachers according to the updated pedagogy and curriculum is an indispensable and effective step to increase student learning outcomes.

Table 2. *Criteria Indicators for Comparing Five Potential Areas of Focus*

Criteria Indicators				
<i>Key Components</i>	<i>Effectiveness</i>	<i>Equity</i>	<i>Feasibility</i>	<i>Cost</i>
Pedagogies	Medium: lack of teacher training may limit the delivery of pedagogy	High: upgraded pedagogy can be conveyed to all schools	High: the Education Futures Office is in place	Low: hiring researchers and operating the office
Curricula	Medium: the curriculum competencies are developed but need to be conveyed to teachers	Medium: updated curriculum requires sufficient technological support	Low: due to the pandemic, not all students can take curriculum evaluation surveys	Medium: operate the curriculum and assessment bureaus

School Environment	High: physically and mentally safe schools can boost student learning	High: building new schools in neediest areas will increase equity	High: the PPP project has detailed plans for school construction	High: hiring construction companies, designing mental health programs
Teacher Development	High: teachers are the key to delivering the updated curriculum	High: ensuring quality education for teachers will benefit students in all schools	High: the NEAP's transformation is prioritized in the reform	High: expanding instructors at the NEAP, evaluating existing TEIs
Collaboration & Partnership	Medium: improving teacher and school quality is more critical	Low: hard to engage communities disconnected due to the pandemic	Medium: online setting may have limited involvement for stakeholders	Medium: hiring a taskforce to contact stakeholders, plan events, and draft documents

Current Challenges in the Philippines

Perennial Shortage of Learning Facilities and Resources

In the Philippines, there is also a surging need for schools to be equipped with facilities of decent quality that support learners in their daily study tasks and active learning engagement with peers and teachers. In densely populated urban areas, classroom space is insufficient to accommodate a growing number of learners, while in some far-flung rural areas, access to basic substances such as electricity and water resources is still lacking. Providing enough laboratories and workshops to support STEM and IT classes remains limited due to institutional problems such as delays in procurement and budget underutilization. Moreover, during COVID-19, learning materials, ICT, and digital equipment are needed to encourage blended learning and quality education.

Exposure to Natural & Human-induced Hazards Risks

As an archipelagic nation, the unique geographic nature of the Philippines highlights serious natural challenges to basic education, such as land barriers to access and education provision. Moreover, situated at the junction of a few tectonic plate boundaries, the country is also highly prone to natural disasters such as earthquakes and volcanic eruptions. Frequent tropical cyclones in the area also bring typhoons, rising sea levels, and flooding problems (Klauth & Ortega, 2017). In the UNICEF climate landscape analysis for Filipino children, Klauth and Ortega (2017) claim that climate-related disasters exacerbate threats to children's well-being and access to education in the Philippines. For example, according to DepEd's internal data, from 2015-2020, a total of 9,854 schools in the Philippines suffered from whole or considerable classroom damage due to tropical cyclones. Also, 821 schools were reported to have incurred classroom damage due to earthquakes (2020).

Prevalence of School Bullying and Violence

Central to the UNESCO's Futures of Education report (2021) is the concept of ensuring schools are inclusive zones of diversity, collaborative spaces of learning, and safe havens free

from violence and bullying. The issue has grown in importance considering the striking bullying rate in schools reported by students in the Philippines. Among the participating countries in PISA, the Philippines has the highest incidence of bullying, with 65% of learners reporting being bullied at least a few times a month in 2018 (OECD, 2019). Evidence from UNICEF (2016) research suggests that some school violence targets individuals or groups based on their gender and sexual orientation. Specifically, more girls (70.5%) than boys (59.8%) had experienced bullying. The LGBT community is also particularly at risk of verbal and sexual violence at school. Moreover, over the past pandemic period, there has been a dramatic increase of peer bullying carried over to online space such as verbal abuse over internet or sexual messages, which heightened the need for addressing cyber bullying as a new form of school violence in the digital learning modality (OECD, 2018).

Ineffective Pre-service Programs

Currently, teacher education is facilitated by the Teacher Education Institutions (TEIs). The Commission on Higher Education (CHED) and the Department of Education (DepEd) governs TEIs by setting “qualification producers” of teachers. The DepEd also provides pre/in-service and continuous professional development of TEIs graduates and all public school teachers.

According to a World Bank study (2014), content knowledge was poorly understood by grade 10 and grade 6 teachers. Another study revealed that Grade 6, 8, and 10 teachers of Filipino, English, Mathematics, and Science teachers were not well prepared to teach their subjects as they showed poor analytical and evaluative skills (RCTQ, 2019). Since 2009, the Board Licensure Examination for Professional Teachers (BLEPT) has witnessed a low passing rate of 31% for the Elementary and 40% for the Secondary levels (DepEd, 2021). A 2021 Congressional Commission on Education (EDCOM) report later explained reason for teachers’ deficient performance was due to low quality teaching training in the pre-service program, and meager opportunities for professional development.

In-service Programs and the Need to Meet New Curriculum Demands

Comments from five teacher interviews mention that “not all teachers are given opportunities to attend training seminars”, that there is “no compensation or fee coverage system for teachers attending training seminars, and “many had obstacles attending seminars and workshops due to financial problems [such as] covering transportation costs”. In the same report by the World Bank (2014), over 50% of 10th-grade high school teachers reported that they felt they needed more in-service training opportunities. Additionally, utilization of the budget allocated for human-resources training and development is low, amounting to only 57% of the budget in 2014. Lastly, teachers have reported that the schools fail to support them in professional development due to the lack of capacity and resources (DepEd, 2021).

Lack of System-wide Evaluation

The current turnover rate of teachers in the Philippines is about two to three years due to heavy workloads, inadequate training and support, and financial hardships (DepEd, 2021). According to teacher focus group interviews, many of the teachers reported that teacher burnout was associated with an inconsistent evaluation system. While research shows that a strong, consistent evaluation system can help address teacher effectiveness, accountability, and compensation (World Bank Group, 2016), the paucity of an evaluation system in the Philippines fails to address teacher professional development planning (World Bank Group, 2014).

In 2017, the DepEd rolled out the Philippines Professional Standards for Teachers (PPST) for teacher selection and promotion (Exec. Order No. 42, 2017). The Philippine Professional Standards for Teachers (PPST) encompasses comprehensive knowledge and skillsets essential to teaching practice. However, our review of the PPST and policies on teacher education yields that there are rare existing monitoring procedures to evaluate whether a training program meets the PPST requirements (NEAP, 2018). A comprehensive, consistent system-wide evaluation system will be needed to

effectively support teacher development (DepEd DO 011, 2019).

Lastly, a lack of a functioning Human Resource Information System (HRIS) contributes to the inconsistency in workforce planning, capacity building, staffing and deployment, performance appraisals, and reporting. Currently, approximately 88% of DepEd's human resources are teachers (DepEd, 2021). Establishing a functional system-wide HRIS would expand information access for central and regional offices to formulate capacity-building strategies (DepEd, 2021).

Comparative Studies of Positive School Environment

Global case studies also demonstrate that improving the school environment can benefit student learning. In Mexico, the Better Schools Program (BSP) focuses on rehabilitating schools' physical infrastructures (Reimers et al., 2021). The central government collaborated with companies, parent associations, and communities to upgrade facilities and resources for 19,400 schools (Reimers et al., 2021). This program was considered as a key component of Mexico's broader education reform to improve the quality of basic education (Reimers et al., 2021).

Colombia and Chile focused on enhancing the psychological safety for learners in schools. Colombia's Ministry of Education designed the Trusting in Families program, which instructs schools on how to engage children in socio-emotional learning (SEL) (Reimers et al., 2021). The program also broadcasts knowledge about SEL to families (Reimers et al., 2021). Similarly, the *HealthyMind* program in Chile features a website that accumulates mental health pedagogies, activities, and instructional resources for teachers to use in schools (Reimers et al., 2021). These programs verify that building a caring and safe psychological school environment is valuable.

Comparative Studies of Quality Teacher Education

Exemplar comparative cross-national studies by Jensen (2012) illustrate why strengthening teacher professional development is essential for an education system. In Korea, the government successfully implemented a reform to rate every teacher education program. Previously, Korea did not have

consistent standards and quality assurance across many teacher education institutions. To provide solutions, the government built a rigid rating system that requires every teacher education program to receive accreditation. Highly rated programs are rewarded with substantial government funding, while low-performing programs face probation or cancellation. Consequently, Korea enhanced their quality of teacher education, which positively contributes to Korean students' high achievements today (Jensen, 2012).

Shanghai, another exemplary East-Asian education system, also devotes significant efforts to build an excellent teaching force (Liang, Kidwai & Zhang, 2016). A World Bank report asserts that Shanghai's policy environment for teachers can be described as "established" or "advanced" based on SABER-Teachers analysis framework. Education policymakers strive to select the best applicants to enter the teaching profession. They provide teachers with ample resources and preparation time. Teachers in Shanghai are also granted autonomy in their instructional practices, clear performance expectations by the monitoring system, and educational research opportunities. This example proves that an effective teacher development mechanism is crucial for improving education quality (Liang, Kidwai & Zhang, 2016).

Summaries of UNESCO's Futures of Education Report

As stated in UNESCO's report, teachers play a vital role in the construction of a new social contract for education. Historically, teachers have been central to establishing mass, compulsory education, both in their relationship with society and in the organization of schooling (UNESCO, 2021). The report emphasizes the connection between teachers and the system. Curriculum and educational resources, for example, cannot create value for students without teachers effectively using them. Thus, teachers need to be empowered with a rigorous recruitment and training process. They need to collaborate with their surrounding resources and with their colleagues. Continuing professional development opportunities and satisfactory work conditions should be in place to further support all teachers. And teachers should feel free to generate

knowledge, conduct research, as well as participate in education policy advisory.

The UN Convention on the Rights of the Child has affirmed that the purpose of education should be based on the best interests and rights of the child, including the right to life, survival, and development. Hammarberg (1998) argues that these principles can serve as a useful instrument in guiding how to reform school environments anchored in child protection. In the same vein, some of the top UN officials urged policymakers and educators to co-create schools as a community of learning, safety, and peace (UN, 2021). The Futures of Education report also shares key principles for building better school spaces. On the physical level, educators should build schools and classrooms that support flexible and student-led modalities of learning. Schools should possess advanced technological equipment and facilities that support environmental protection. Psychologically, schools need to convey a culture of safety, care, and collaboration. Ideal school communities should work to reduce campus bullying and mental stress for students. The Philippines must mend classroom and resource shortages, as well as the prevalent campus bullying and academic stress for students (Aldridge & McChesney, 2018).

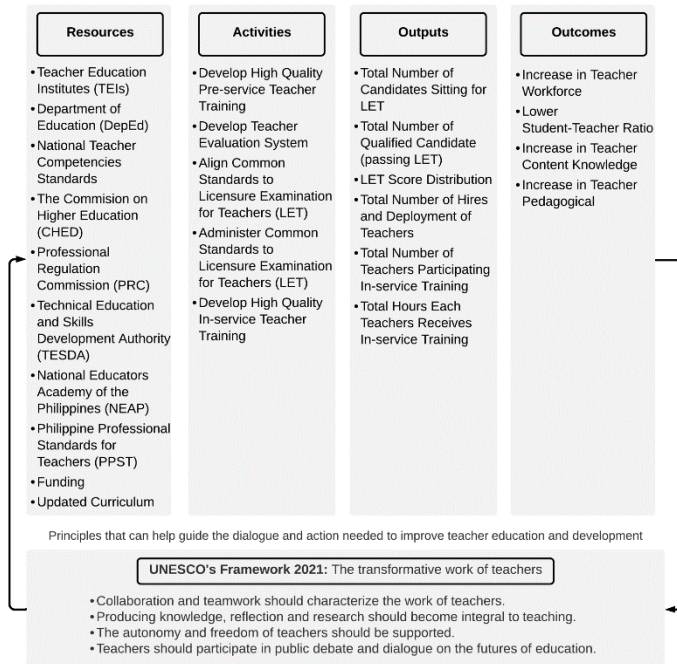
12.5 Policy Recommendations and Implementation

12.5.1 Theory of Change

As the Futures of Education report and comparative examples have shown, improving teacher development and school environment can raise the quality of education for students. Thus, this chapter proposes that if the Philippines strengthens school infrastructure, inclusive and equitable student experiences, and teacher development, then the quality of education will improve, and the Philippines' education system will move closer to UNESCO's vision of the Futures of Education. This section will address the importance of improving school environment and teacher education in the Philippines. A logic model approach is then used to evaluate the existing assumptions and theory of change that underlie the structure of the programs (Kekahio et al., 2014). The logic

model framework serves three purposes: (1) identifies assumptions, input/resources, existing policy efforts (activities & output) for the proposed improvement areas; (2) aligns the desired outcomes with the UNESCO principles; (3) guides the policy recommendations presented in this chapter. You can see an example of the logic model approach in Table 3.

Table 3. *Logic Model of Teacher Education & Development*



It is also important to note that ideally, logic models should spell out in greater detail the activities and resources necessary to produce the intended outcomes. Although we were not able to dive deeper into the analysis, the approach combined with the UNESCO's Framework provided us insights that led to the policy recommendations outlined through guiding principles or strategies, and implementation in this chapter.

12.5.2 Improving School Environment

Consistent with the UNESCO report, a growing body of research has indicated that a positive school environment could be associated with the core elements of quality education, such as learning outcome, student health, effective prevention of school violence, socio-emotional development, and teacher retention (Aldridge & McChesney, 2018; Aspen Institute, 2019; Maxwell et al., 2017; Tapia-Fonllem, 2020). Therefore, one of the leading factors to ensure the transition from education access to education quality is to create and sustain a positive school environment. The school environment approximates the experience of students at school with respect to the perception of safety, material surroundings, resources, academic rigor, and social cohesion (Wang & Degol, 2016). However, in the Philippines, schools are still plagued by perennial problems, such as the frequentation of disasters, the lack or disrepair of learning facilities, the inadequacy of risk management mechanisms, the insufficiency of safety instructions, and the presence of school bullying (OECD, 2020). The prevalence of these problems significantly poses safety risks to students, thus, building a positive school environment requires collective attention to school safety and student experience.

Besides these force majeure factors, human-caused chaos is a serious disturbance to basic education in the Philippines. Armed conflicts such as large-scale clashes between the government forces and armed groups (i.e., 5-month long Marawi siege in 2017) would destroy schools with thousands of students. A recent report from the Disaster Risk Reduction and Management (DRRM) Office under the DepEd also reveals the disastrous effects of these armed conflicts: class suspensions, death of learners due to artillery weapons, and denied humanitarian access.

Either of these natural and human-induced hazards would impede the education provision, damage school infrastructure and non-infrastructure, threaten the lives of students and teachers, and other educational investments in Filipino schools. Thus, such adverse environmental conditions make schools not ideal settings for children to flourish and would even impose harm to children's mental and psychosocial development.

Ensuring that schools have a safe and positive school environment is thus urgently needed.

Policy Recommendations for Improving School Environment

While witnessing the significant government efforts achieved in the school environment, further improvement in transcending basic education from “accessible” to “quality” is still needed. The following policy notes provide strategic policy directions for the policymakers and schools to rethink and co-create the Philippines school environment for the future.

UNESCO Principle: Building collective capacity should guide the redesign of schools; Digital technologies should aim to support - and not replace – schools.

Strategies	Implementation
1. Improve the government's allocation mechanism of school infrastructure funds.	<ul style="list-style-type: none"> ● Build a system of accountability to prevent delays in distributing school infrastructure funds.
2. Empower schools to deliver online learning.	<ul style="list-style-type: none"> ● Improve ICT platforms. Connect all schools to a national education network. ● Adapt digital learning resources for all types of learners of all ages. ● Provide digital education equipment guidelines for teachers and students in all schools.

<p>3. Align resource provision (including digital devices) with different learner types and learning outcome expectation.</p>	<ul style="list-style-type: none"> ● Expanding student access to STEM learning resources by building laboratories or special programs in schools. ● Prioritizing student wellness in school by enhancing establishment criteria for facilities such as dorms and canteens.
<p>4. Design and deliver alternative learning to ensure quality education continuity in face of emergencies.</p>	<ul style="list-style-type: none"> ● Collaborate with higher education institutions and educational NGOs within and beyond the Philippines to develop education teaching and learning resources that could be distributed and implemented.

UNESCO Principle: Schools should model the futures we aspire to by ensuring human rights and becoming exemplars of sustainability and carbon neutrality.

Strategies	Implementation
<p>1. Protect learners and staff from risks brought by natural and human-induced hazards.</p>	<ul style="list-style-type: none"> ● Install education facilities that are disaster proofed and multi-hazard resilient
<p>2. Provide learners with access to learning continuity interventions in the aftermath of a disaster or emergency.</p>	<ul style="list-style-type: none"> ● Mainstream disaster prevention and mitigation, preparedness, action, and recovery mechanisms in all schools ● Involve students, teachers, parents and

	<p>communities in disaster response education and practice regular simulation and evacuation drills</p>
<p>3. Provide learners with basic physical and mental enrichment programs in school to ensure they have the resilience to cope with risks.</p>	<ul style="list-style-type: none"> • Provide emergency equipment such as first-aid kits in all schools.
<p>4. Designing and delivering alternative learning resources contingency plan to ensure quality education continuity in face of emergencies.</p>	<ul style="list-style-type: none"> • Develop a comprehensive rehabilitation and recovery plan for schools to respond to different types of natural and human-induced disasters
<p>5. Designate construction and safety criteria for schools chosen to be evacuation centers and equip those schools with the capacity to serve as transitional shelters.</p>	<ul style="list-style-type: none"> • Design and deliver alternative learning modality during rehabilitation and reconstruction • Establish early warning systems, risk financing and insurance mechanisms for schools

UNESCO Principle: Schools should be protected as spaces where students encounter challenges and possibilities that are not available to them elsewhere.

Strategies	Implementation
1. Integrate children’s rights in the design of all DepEd programs and projects.	<ul style="list-style-type: none"> ● Mobilize resources to foster parent partnership and knowledge about nonviolence in schools.
2. Provide an inclusive, diverse, culturally responsive, and gender-sensitive learning environment.	<ul style="list-style-type: none"> ● Improve civic, arts and history programs that educate students about the Filipino national identities and Indigenous culture. ● Develop an advocacy plan to reduce violence and bullying in schools. Engage companies and social organizations to establish cybersecurity protocols for students' mental health.
3. Promote stakeholder engagement in specialized education for disadvantaged learners.	<ul style="list-style-type: none"> ● Engage schools, communities, and government offices to support counseling programs and services for special learners and the LGBT student group.
4. Sustain learners' mental and psychosocial health protection program.	<ul style="list-style-type: none"> ● Introduce teacher-student, peer-to-peer counseling programs and support groups to reduce school violence and cyberbullying.

12.5.3 Improving Teacher Education & Development

In accordance with UNESCO’s report, teachers play a vital role in the construction of a new social contract for education. The quality of an education system cannot be achieved without a quality teaching workforce (McKinsey, 2007). As the *Sulong Edukalidad* also calls for an investment in teachers’ upskilling and reskilling. However, the Philippines currently lacks the professional readiness and capacity to implement teacher training programs at scale. Based on UNESCO’s advocacy for developing quality teaching capacity, we seek to provide actionable policy recommendations regarding teacher credentials, professional training, and quality evaluation.

Policy Recommendations for Improving Teacher Education & Development

Given the desired outcomes of the logic model, the following section provides policy recommendations regarding teacher training, professional development, and evaluation:

UNESCO Principles: Collaboration and teamwork should characterize the work of teachers; autonomy and freedom of teachers should be supported.

Strategies	Implementation
1. Bridge the gap between pre-service and in-service teacher training through a relationship-based approach.	<ul style="list-style-type: none"> ● Initiate NEAP to work with TEIs to align and coordinate TEI curriculum with PPST standards and K-12 curriculum.
2. Build new spaces and settings where multiple actors can work together in developing stronger pre-service teacher training programs.	<ul style="list-style-type: none"> ● Initiate NEAP to work with schools to implement career progression opportunities throughout in-service training using PPST guidelines.
3. Establish education “parks” (education-focused spaces) that bring together	<ul style="list-style-type: none"> ● Establish common standards for all governmental arms

stakeholders for shared learning design and teacher preparation work.	(DepEd, ChEd, PRC, TESDA) involved in pre-service and in-service teacher training, and teacher licensure
4. Embed teacher education programs into schools, taking an inquiry-oriented approach to learning and action.	<ul style="list-style-type: none"> ● Establish minimum standards for operations (accountability measures) for TEIs and partners involved in pre-service; evaluate through an accreditation/rating system.
5. Establish an accreditation system for quality control and fidelity of pre-service and in-service teacher training.	<ul style="list-style-type: none"> ● Establish professional learning communities (PLCs) at TEIs to continue collaboration and engagement for teachers across their professional careers.
6. Build a communication-management platform for TEIs, NEAP, curriculum planners, schools, and partners to use in aligning pre-service.	<ul style="list-style-type: none"> ● Dedicate joint work (projects) between multiple actors in education including public authorities, teachers' association, and non-government.

UNESCO Principles: Collaboration and teamwork should characterize the work of teachers; teachers should participate in public debate and dialogue on the futures of education.

Strategies	Implementation
1. Redesign the role of teachers as collaborators during induction, mentoring, and in-service programs.	<ul style="list-style-type: none"> ● Establish multiple teacher training centers through partnerships focused on both building teacher capacity to meet the

	updated curriculum demands and supporting teacher wellbeing.
2. Build new spaces for learning and innovation through collaboration with various actors connected to teacher education.	<ul style="list-style-type: none"> ● Establish clear definitions of the role and responsibilities of teachers as collaborative professionals.
3. Implement induction and mentoring programs that support novice teachers throughout their vital first years.	<ul style="list-style-type: none"> ● Establish clear expectations across all induction, mentoring, and in-service programs around supporting teachers' autonomy, development, and collaboration.
4. Increase funding and opportunities for professional development, education, and support to work with different population groups with diverse backgrounds and needs.	<ul style="list-style-type: none"> ● Initiate collaborative structures in lesson planning and mentoring from more experienced colleagues during the first 3 years of induction for new teachers.
5. Increase financial resources for all teachers to have access to ongoing professional development.	<ul style="list-style-type: none"> ● Establish a recruitment program of Indigenous, local, diasporic teachers in schools.
6. Increase opportunities for teachers to participate in the definition and construction of public policies.	<ul style="list-style-type: none"> ● Establish reimbursement programs for teachers to participate in professional development and public debate and dialogue on the futures of education.

UNESCO Principles: Producing knowledge, reflection and research should become integral to teaching

Strategies	Implementation
1. Reevaluate existing teacher strength and needs assessments and teacher professional development planning for identifying factors that contribute to teacher attrition.	<ul style="list-style-type: none"> ● Establish strong alignment between professional development planning, career development, and performance incentives.
2. Develop assessment tools to identify didactic knowledge, pedagogical knowledge, and professional knowledge of teachers.	<ul style="list-style-type: none"> ● Establish induction, coaching, and mentoring programs in assessment
3. Develop assessment tools to identify teachers' in-service training needs and inform the evaluation system.	<ul style="list-style-type: none"> ● Establish guidelines for each level of teacher career stages (7 stages)
4. Develop assessment tools in helping teachers recognize themselves as reflexive practitioners and knowledge producers.	<ul style="list-style-type: none"> ● Initiate NEAP to work with TEIs in facilitating the operationalization of the PPST
5. Develop an evaluation system using student performance results (e.g., test scores) that can bring accountability to teacher performance and encourage teachers to develop their practice and quality of teaching.	<ul style="list-style-type: none"> ● Analyze student performance results to develop an evaluation system for accountability and developing teachers practice and quality of teaching.
6. Establish clarity on promotions and higher salary	<ul style="list-style-type: none"> ● Establish a Human Resource Information

levels for more effective teachers.	System (HRIS) for managing teacher-related information
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12.6 Conclusion

In the last decade, the Philippines have engaged in large-scale reforms to establish a K-12 system, expand access and enrollment, and improve the quality of public education. However, critical actions are needed to enhance teachers' professional development and schools' physical and psychological environment. Synthesizing successful programs worldwide and UNESCO's report principles, this chapter provides six policy recommendations for strengthening the *Sulong Edukalidad* reform in the future. Regarding teacher development, the Philippines' government and NEAP should design and disseminate coherent standards to unify the quality of pre-service and in-service programs. While policymakers implement the Teacher Education Excellence Act, a consistent system for evaluating teacher effectiveness, accountability, and compensation, should be designed. As for strengthening the school environment, the reform should continue to build physical schools with ample facilities. The reform should also develop education in emergencies plans and school-based support that enhance students' psychological well-being.

As a result, the Philippines can advance its education system towards the vision of UNESCO's Futures of Education. The chapter also believes that through the policy changes and *Sulong Edukalidad* reform, an enhanced K-12 education system will enable Filipino students to have better learning opportunities and add valuable experience to the UNESCO's global education community under a new social contract.

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Chapter Thirteen. Sierra Leone

Fostering Civic Literacy in Sierra Leone

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Abstract

This chapter analyzes Sierra Leone's public education efforts to foster civic literacy and the ways in which these efforts align with the educational vision rendered in UNESCO's report, *Reimagining our Futures Together: A New Social Contract for Education* (UNESCO, 2021). The Ministry of Basic and Senior Secondary Education (MBSSE) released a new Basic National Curriculum Framework (BNCF) in 2020, of which much of the curricular and pedagogical principles align with UNESCO's vision. These alignments are highlighted in the BNCF's commitment to prioritize the cultivation of civic literacy and agency among learners and teachers through its new compulsory civic education program, based on learner-centered pedagogy (MBSSE, 2020a). In this paper, we make recommendations aimed to improve the efficacy of the MBSSE's approach to civic education within two domains (a) student learning and (b) teacher preparation and development. Within student learning, we recommend to: (1) add social and emotional learning (SEL); (2) integrate the arts-based and community-centered approach of the National Council for Civic Education's out-of-school civics program; and (3) collect baseline data on civic literacy. Within teacher development, we recommend to: (1) establish a civics-specific "community-of-practice" (CoP); (2) open vertical channels of communication; and (3) create a comprehensive teacher evaluation plan.

13.1 Introduction

Our research examined the alignment between Sierra Leone's education reform efforts and UNESCO's Futures of Education report. We began our research by conducting a landscape analysis of Sierra Leone's ongoing national education reform, the Free Quality School Education Initiative (FQSE). We reviewed official documents, context-relevant comparative literature, and conducted interviews with members of the Ministry of Basic and Senior Secondary Education (MBSSE), the Teaching Service Commission (TSC), and the National Council for Civic Education (NaCCED). In this analysis, we learned that the efforts of the MBSSE focus on expanding access and improving the quality of basic education. In our work, we aimed to locate opportunities for policy and program recommendations that could further align the MBSSE's efforts with UNESCO's renewed vision for education. This analysis led us to the new Basic National Curriculum Framework's focus on civic literacy, which will be the focus of this chapter. To frame our focus on civic literacy and its implications for the schools and citizens of Sierra Leone, we begin with a contextual overview of the educational landscape in Sierra Leone, followed by analysis and proposals for recommendations within two domains related to civic education: (1) student learning and (2) teacher preparation and development. These recommendations aim to foster deeper alignment with the curricular and pedagogical proposals of the UNESCO vision as well as the aspirational vision and commitments of the new BNCF of Sierra Leone.

13.2 Background

Since its independence in 1961, Sierra Leone's education sector has experienced extreme adversities. From a civil war (1991-2002) to an Ebola epidemic (2014-2015), to the most recent Covid-19 pandemic that shut down schools for six months, Sierra Leone continually endeavored to rebuild the education sector (Graham et al, 2021). Still, the education system faces serious challenges amidst a context in which more than half of the population is eligible for basic education and school

enrollment has continually increased over the last decade (UNESCO, 2020). The MBSSE has endeavored to respond to increased education needs amidst severe levels of food insecurity among children, the challenge of accessibility for marginalized learners, and the low capacity of qualified teachers (Graham et al, 2021; MBSSE, 2020a).

Basic education, comprising nine years of compulsory school, consists of primary education (first 6 years) and junior senior secondary (JSS) education (3 more years). Senior secondary education is three years and is not compulsory, though encouraged (G. Kargobai, personal communication, January 28, 2022). In 2018, the functional literacy rate within the 7-14-year-old age group was only 17% and numeracy only 13%; in the 15-24 age group literacy rates were higher, at 66.6% (UIS, 2021; UNICEF, 2018). After completing 8-11 years of schooling, most students only demonstrate skills equivalent to those expected from students in primary school (IIEP-UNESCO Dakar, 2020).

One of the main quality-related challenges to improving student learning outcomes is the current state of teacher preparation throughout the education system. Most recent data suggest 58.7% of teachers held the required qualifications to teach at the level they currently teach (MBSSE, 2021a), while 34% of teachers had no formal training (Global Partnership for Education, 2018). These factors highlight the need for professional teacher development support; however, current in-service training is mostly ad-hoc and not linked to teachers' career progression (World Bank, 2021). Multiple providers, national and international, offer individual training programs, with little coordination between them and limited impact on teachers' career development and classroom practices (World Bank, 2021). There is also no national standardized method of evaluating and observing teachers, leaving little opportunity for continuous improvement of teacher practice (World Bank, 2021).

13.2.1 Ongoing Reform Efforts in Sierra Leone

Recognizing education as a critical step toward building human capital and improving the quality of life for citizens of Sierra Leone, the new administration under President Julius Maada Bio (2018) focused their reform efforts on (1) increasing equitable access to education and (2) improving the quality of learning and teaching in schools, through the launch of the MBSSE's Free Quality School Education Initiative (FQSE) in 2020. To support the FQSE Initiative, the government committed to allocate 21% of its national budget to education (World Bank, 2020). Some of the FQSE Initiative's programs and policies include: (1) removing tuition fees for all students in Government and Government-Assisted Schools; (2) implementing the Radical Inclusion Policy, which prioritizes inclusion for the most marginalized of learners, such as female, rural, and disabled learners; (3) establishing the Integrated Homegrown School Feeding Program to provide free meals to learners; (4) launching the new Basic National Curriculum Framework (BNCF); and (5) supporting the development of a high-quality teacher workforce through the National Policy on Teacher Professional Development and Performance (MBSSE, 2021b). These initiatives uplift UNESCO's foundational principles, "assuring the right to quality education throughout life" and "strengthening education as a public endeavor and a common good" (UNESCO, 2021).

13.3 Our Approach

While our work could have focused on any of these initiatives, our research aimed to locate areas of present alignment with the proposals of the UNESCO report that also revealed opportunities for high-feasibility and high-impact policy and program recommendations. This led us to the new Basic National Curriculum Framework (BNCF) and the National Policy on Teacher Professional Development and Performance, which reflect the UNESCO report's proposals in their ambitious commitment to shift from didactic teaching to the cultivation of 21st-century competencies through learner-centered pedagogy. The addition of civic education as a

standalone compulsory subject for all grade levels of basic education and the establishment of civics-specific teacher training to nurture civic literacy among teachers and learners offers rich potential for further alignment with the UNESCO report.

13.4 Centralizing Civic Literacy

13.4.1 The New Basic National Curriculum Framework

To contribute to the FQSE initiative’s goals, the MBSSE published the BNCF in July 2020, outlining its goals and vision, stating “an excellent curriculum enables learners to acquire knowledge, skills, attitudes, and values for development of individuals, communities, and the nation, through inclusive growth and patriotic contributions to an equitable and progressive society” (MBSSE, 2020a, p.2). The curriculum framework makes a shift from examination and rote memorization towards the cultivation of five 21st century competencies such as comprehension, computational thinking, critical thinking, creativity, and civic-mindedness. There are eighteen separate syllabi connected to the BNCF, separated into compulsory core subjects and optional electives. Included in these core subjects is a new compulsory subject on civic education (MBSSE, 2020a). While this new curriculum framework and associated syllabi were intended to be disseminated in 2020, the Covid-19 pandemic delayed dissemination and implementation until mid-2021. While some teachers were trained in the new curriculum, a lack of resources led to the delay of full teacher preparation and development, and in some cases, the delayed dissemination of the new curriculum and associated syllabi altogether (A. Tajawie, personal communication, December 15, 2021).

13.4.2 Civic Education as a Compulsory Subject

The introduction of civic education to the BNCF as a standalone, compulsory, and non-didactic subject reflects the MBSSE’s commitment to cultivating agency and civic-mindedness among learners and teachers, not only in theory but

in practice. The civic syllabus framework was developed through the MBSSE's strategic partnership with the National Council for Civic Education and Development (NaCCED), and the Yale Jackson Institute for Global Affairs Policy Practicum Class in 2020 (Xu et al., 2020). The NaCCED was formed in 2018 specifically to foster and nurture civic dispositions among young people, in and out of school (A. Tajawie, personal communication, December 15, 2021).

This collaboration contributed to the development of the civic syllabus, teacher training materials, and textbooks. The aim of the new civic subject “may be defined as educating children, from early childhood, to become responsible, clear-thinking and enlightened members, capable of making informed decisions about themselves and participating effectively in societal development” (NaCCED, 2020). The syllabus states goals to expand learners' awareness of their rights and responsibilities, as well as to nurture the promotion of equity, understanding of the interdependence of all peoples, and appreciation of diversity. (MBSSE, 2020b). These goals align with one of the main guiding principles of the UNESCO vision for Curricula and the Evolving Knowledge Commons; namely, “human rights and democratic participation should be key building blocks for learning that transform people and the world” (UNESCO, 2021).

13.4.3 Teacher Preparation and Development for Civics Education

While the BNCF makes ambitious strides toward elevating the content and pedagogical quality of learning in schools, teachers must be adequately prepared to teach this new curriculum. The Teacher Service Commission (TSC), a semi-autonomous branch of the MBSSE, is responsible for teacher training, preparation, and teacher workforce management. The TSC is spearheading the 2020 National Policy on Teacher Professional Development and Performance, which seeks to improve the coherence and standardization of the professional development program that supports teachers' career progressions and lifelong learning (TSC, 2020; World Bank, 2021). With the support from the

World Bank-funded Free Education Project (2020-2025), US\$19 million of funding was granted to develop teacher professional development in Sierra Leone (World Bank, 2020). While their work was heavily delayed by Covid-19, standardized teacher development programming and preparation are underway, including the integration of tablet-based evaluation and assessment methods like the One Tablet Per School Program and World Bank’s Global Coach Program (C. Sackey, personal communication, December 14, 2021).

While the aforementioned programs focus on teacher professional development for math, English, and science subjects, a separate teacher training was developed by the NaCCED, MBSSE, and TSC for civic education teachers (NaCCED, 2020). The civic education teacher training is based on a top-down, “train-the-trainer” (ToT) cascade model aligned with the new civics syllabus and the new learner-centered teaching pedagogies of the BNCF (NaCCED, 2020). While social studies teachers were broadly assigned to teach civics due to overlap in content (A. Tajawie, personal communication, December 15, 2021), teachers across the country were recruited to volunteer to be trained as civic peer educators for their schools. During the first five trainings in October and November of 2020, 173 teachers were trained across all sixteen districts (NaCCED, 2020). The current ToT cascade model disseminates information from the NaCCED-led training sessions to peer educators, who are expected to share the training with other civics teachers at the school level. While the training utilized participatory learning techniques to promote active engagement of participants, teachers voiced concerns about the effectiveness and sustainability of the ToT model due to the expectation for individual teachers to transfer knowledge to the rest of their school (NaCCED, 2020).

13.5 Areas of Opportunity for Further Alignment with the UNESCO Report

For the BNCF to achieve its intended goal of nurturing civic dispositions among youth in Sierra Leone, we identified opportunities to improve the MBSSE’s and NaCCED’s

approach to teacher preparation, as well as areas of content shifts that could serve to increase program efficacy. We offer these recommendations in light of the question, *how can Sierra Leone ensure the cultivation of learner and teacher agency through the implementation of the new civic education curriculum?* With the holistic adoption of these proposals, we see a pathway for the civics curriculum not only to be successful, but for it to become a model for other subjects to adopt the learner-centered, contextually-relevant, and teacher-empowered pedagogical shifts aspired by the BNCF. Our analysis and recommendations will follow within distinct sections on 1) student learning, and 2) teacher preparation and development.

13.5.1 Student Learning

This section provides analysis and recommendations for student learning within the domain of civic literacy. We offer three recommendations that aim to increase the efficacy of the MBSSE's new focus on civic literacy: (1) add social and emotional learning (SEL); (2) integrate the arts-based and community-oriented approach of the NaCCED's out-of-school civics program, *Edutainment*; and (3) collect base-line data about current civic knowledge and dispositions among learners and educators.

13.5.1.1 Recommendation 1: Add Social Emotional Learning (SEL)

For learners to critically investigate their political and social landscape and claim agency to actively participate in their communities, SEL skills serve as a critical and foundational competency (CASEL, 2021a). Namely, self-awareness is preliminary to social awareness and engagement. Research among teachers in Sierra Leone itself demonstrates that feelings in the classroom matter; not only do emotions impact learning, but they also directly impact student engagement and agency (Le Wi Lan, 2021). While the BNCF explicitly names a commitment to SEL, it is absent from the new syllabi (MBSSE, 2020a). The new compulsory civic education subject is an especially rich

opportunity to integrate SEL skills, not only because of overlap in competency and content focus, but also because of the emerging stage of civic teacher training and implementation.

The civics curriculum aims to promote a spirit of cooperation, tolerance, and peace in society. It also strives to enable students to develop an understanding of the human condition and the societies in which they live, including explicit guided reflection on identity and the meaning of being a ‘good citizen’ (MBSSE, 2020b). What is largely absent from the syllabus though, are non-didactic strategies to navigate one’s emotions, as well as the cultivation of self-awareness and self-management practices. These competencies are found to be critical to nurturing self-aware, empathetic, and civically-oriented individuals (CASEL, 2021a). As UNESCO further states, “empathy, as the ability to attend to another and feel with them, together with ethics, is integral to justice” (UNESCO, 2021, p. 55). While ethics are already an integral part of the civics syllabus, SEL strategies that help learners become in touch with their own sense of care—for themselves, others, and the world—would strengthen the civics curriculum (CASEL, 2021a; MBSSE, 2020b).

One of several well-researched SEL frameworks could be integrated into the current civics curriculum, such as the CASEL 5, developed by the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2021b). While such frameworks are used widely in Western contexts, little research has been conducted in the West African context. To ensure context-relevant learning, we recommend adopting a framework that is adapted through a culturally-responsive, situated, and embodied approach. As research in non-Western contexts suggests, “while the principles, goals, and key skills of SEL might apply to most or even all cultures, an emic approach, where culture-specific values, beliefs, or customs drive the development and implementation of SEL curriculum, and incorporates the meaningful inclusion of key community members, is needed to be effective” (Hayashi et al., 2022, p. 1). As UNESCO furthers, “social and emotional learning practices are heterogeneous and need appropriate contextualization. They require consciously designed learning experiences, bonding with teachers, positive

peer experiences, intergenerational understanding, and community involvement” (UNESCO, 2021, p. 68).

We recommend the MBSSE establish an SEL task force, consisting of multilayered educational stakeholders—including teachers, curriculum specialists, tribal heads, and other community members and leaders—to begin a dialogue about SEL and possible frameworks for integration. This process could be openly shared at the civic education teacher trainings to cultivate dialogue, gather insights, and co-create a community-based approach to integrating SEL into the civics curriculum. As UNESCO uplifts in their report, shared dialogue is essential to reimagining curriculum and pedagogy. We must prioritize “opportunities for collaborative education and cultural understanding, by connecting with local elders, community leaders, and knowledge-keepers” (UNESCO, 2021, p. 58). This process could also empower teachers to ‘try on’ and research SEL practices in the classroom as dialogue emerges, which could be shared to inform practice, subsequent frameworks, and SEL policy.

13.5.1.2 Recommendation 2: Integrate Arts-Based and Community-Centered Approach of Edutainment

Our second recommendation aims to leverage the strategic partnership with the NaCCED to integrate approaches of *Edutainment*, their out-of-school civics program, into the in-school civics curriculum. This recommendation aims to help realize the learner-centered, contextually-relevant, and creativity-oriented pedagogical goals of the BNCF (MBSSE, 2020a).

Edutainment engages at-risk youth in civics education through a community-based and music-centered approach in which NaCCED staff visit communities to engage youth in conversations about civics while local musicians play music. As leaders of the NaCCED expressed, the music draws in youth through a language they relate to and love (A. Tajawie and K. Totangi, personal communication, January 14, 2022). An arts-centered approach opens the door to speak to youth about their value to the community, as well as to invite them into open-

dialogue circles with government authorities, police officers, and other “high-level officials.” The dialogues intend to create space for youth to discuss the real challenges they face and how they can claim agency to improve their lives and contribute to society (A. Tajawie, personal communication, December 15, 2021). As there is currently no connection between the in-school and out-of-school NaCCED civics programs, we see the potential for a connection to be forged (A. Tajawie and K. Totangi, personal communication, January 14, 2022).

This connection could be structured in several ways. One feasible way to integrate the community dialogues could be to hold monthly, open community dialogues within the classroom during the civics subject. Students could be granted agency to invite in adults from their community—such as tribal heads, knowledge keepers, town criers, and mothers who volunteer for the School Feeding Program—to visit the local school to take part in a civics dialogue. Each month could focus on a relevant theme or civic-oriented inquiry that aligns with the syllabus as written, while “drawing on the deep cultural reservoir” of the community at hand (UNESCO, 2021, p.58). This collaboration would also serve to break down traditional norms about where learning happens and whose voices are valued, furthering UNESCO’s call to action to reimagine learning as a lifelong, communal endeavor (UNESCO, 2021).

This monthly dialogue could also integrate music by inviting local musicians or partnering with teachers who are in charge of the expressive arts elective subject. While the civics curriculum names goals to “identify the values of music and arts in their communities,” as well as to define ‘community’ and discuss its importance, our recommendations aim to offer a method to achieve these goals by shifting from a didactic pedagogy to an experiential learning method (MBSSE, 2020b, p.8). While the BNCF suggests that “schools that organize voluntary activities in the community can teach children much more about civic duties than they would learn through didactic teaching of civics as a subject,” there is little guidance about how teachers may do so (MBSSE, 2020a).

By integrating the arts, community engagement, and context-relevant learning during the in-school civics subject, the salient

connection between creative expression and critical consciousness is forged. Namely, critically reflecting on the state of our lives and communities is linked to creatively inquiring about how we ourselves can make them better. As UNESCO makes clear, “the arts also make visible certain truths that are sometimes obscured” and the arts, especially when used to critically assess and reflect upon realities of our communities, help to build possibilities of healing, connection, and transformation (UNESCO, 2021, p.73). To build new realities that support a sustainable, high-quality, and equity-promoting life, creativity is paramount—for those realities to be built, they first must be envisioned (UNESCO, 2021).

13.5.1.3 Recommendation 3: Collect Baseline Data on Civic Literacy

Our last recommendation is to collect baseline data on civic knowledge and dispositions among students and teachers. Data has yet to be collected to assess the current understanding and embodiment of civic-mindedness among learners and educators (A. Tajawie and K. Totangi, personal communication, January 14, 2022). While the TSC and the NaCCED have an assessment plan in place to collect impact data in subsequent years, we recommend collecting baseline data now to inform future impact data analysis and ongoing program modification. We recommend MBSSE school assessment officers disseminate a qualitative survey during their regular tri-semester school visits to collect data on the progress of civic literacy among students and teachers (C. Sackey, personal communication, December 14, 2021). This data collection could engender critical reflection on the content and pedagogical approach of the civics curriculum, in addition to informing teacher preparation and development.

We recommend that data be collected and collated, not only to inform civic teacher training, but to be shared openly with teachers, administrators, and community members. This could help nurture a learning environment whereby teachers and community members are invited into learning themselves, as well as a sense of ownership of the program and empowerment

to improve it. This would be reflective of UNESCO’s urging that “knowledge needs to be channeled and expanded in order to understand present conditions as well as imagining new future possibilities for education” (UNESCO, 2021, p.126). This invitation could spur rich, informal dialogue within the educational ecosystem, as well as significant programming or pedagogical modifications for future iterations of the civic education program.

13.5.2 Teacher Preparation and Development

With the launch and dissemination of the new Basic National Curriculum Framework (BNCF) comes the need to train teachers to deliver the new content and learner-centered pedagogical shift foundational to the new civic education subject. This section provides analysis and recommendations for teacher preparation and development within the domain of civic literacy. We offer three recommendations: (1) establish a community of practice (CoP); (2) open vertical channels of communication; and (3) create a CoP-specific evaluation plan.

13.5.2.1 Recommendation 1: Establish a Community of Practice (CoP)

Our first recommendation aims to expand the current top-down ToT model of civic education teacher training by establishing a civics-specific Community of Practice (CoP). To foster more collaborative, accessible, and continuous professional development opportunities, a CoP would allow civics teachers to connect regularly with other civics teachers in small clusters. This would create a continuous learning space whereby teachers could share the professional and practical knowledge they are acquiring experientially in the classroom as they gradually adopt and practice new pedagogies to teach the new content of the civics subject.

Currently, CoPs are already utilized among English, math, and science teachers in 40-45% of schools in Sierra Leone, led by the TSC CoP model in partnership with the World Bank (C. Sackey, personal communication, January 14, 2022). It is recommended

the TSC works with the NaCCED to establish a similar CoP model for civics teachers. To ensure the participatory and collaborative nature of the civics education and teacher training is sustained throughout the cascade model, peer educators can meet small groups of civics teachers at the school or at a common geographical location once a week during the school year to form a CoP. Regularly connecting with other civics teachers in small groups will allow teachers to share the professional and practical knowledge they gain within their classrooms and common professional development sessions. This can be a beneficial method to disseminate knowledge and train teachers on how to utilize the provided teaching materials in their classrooms while simultaneously ensuring that a school is not dependent on the knowledge of a single peer educator. The creation of the CoP at the grassroots level creates an extra layer of checks and balances to ensure the curriculum is delivered in fidelity with the NaCCED's vision.

Principles for a Civics-Based CoP

The English, math, and science CoPs currently in place encourage teachers to be reflective practitioners, open to sharing with other teachers what is and is not working in the classroom and to find solutions through curiosity and continuous collaboration (C. Sackey, personal communication, January 14, 2022). The structure and practices of these CoPs are connected to the MBSSE's recent Leh Wi Lan program, *Teachers as Change Agents* (Leh Wi Lan, 2021). This teacher-led research project supported more than 200 teachers to author their own research project, in which they shared research questions, methodology, and collaborative experimentation to find solutions to challenges that arose in their classrooms. The teachers' topics ranged from "inclusion of girls," to "new teaching strategies," to gathering "learner's feedback" (Leh Wi Lan, 2021, p. 3). While evidence that supports the effectiveness of a teacher-led research project is only self-reported, a qualitative analysis of the project's impact found that teachers developed concrete research and collaboration skills through the regular reflection of their teaching practice and support from other educators (Leh Wi Lan, 2021). Teachers were also encouraged through this

process to claim agency in their practice to try new methods based on emerging experiences with students (Leh Wi Lan, 2021).

Because this project aligns with UNESCO's vision to empower teachers as respected knowledge producers and professionals, we recommend incorporating the strategies and principles of this teacher-led research model into the civics-based CoP. This could be an effective way to foster an empowered teaching workforce within schools nurtured as learning organizations (UNESCO, 2021).

Opportunities for Horizontal Connections across CoPs.

While the NaCCED encourages peer educators to train teachers in the new civics curriculum through participatory-based discussion and engagement, the opportunity for teachers to embark on their own research could lead to shared knowledge across civics CoPs and department officials. The knowledge discovered during these micro-research projects would not only introduce teachers to the mode of research as a method of continuous learning but also allow CoPs and district officials to better understand the progress of training and teaching, which could inform future policy. By sharing and publishing teachers' research on the new civics subject, the NaCCED, MBSSE, and TSC could publicly endorse teachers' roles in the larger public sphere and recognize them as authors and producers of practical knowledge of their profession. Such recognition could help to uplift the teaching profession in Sierra Leone and motivate current teachers in the workforce to innovate, collaborate, and draw in new teachers to the field. As the UNESCO report puts it succinctly, "In any profession, the practitioners contribute to the generation of expert knowledge, often as the result of systematic experimentation, evaluation of experience and practice, and of finding ways to make public the knowledge emerging from experimentation" (UNESCO, 2021, p. 97).

13.5.2.1 Recommendation 2: Open Vertical Channels of Communication

Our second recommendation aims to elevate teachers as educational decision-makers within the public sphere. As UNESCO uplifts, “When teachers are recognized as reflective practitioners and knowledge producers, they contribute to growing bodies of knowledge needed to transform educational environments, policies, research, and practice within and beyond their own profession” (UNESCO, 2021, p. 97).

Within the current NaCCED cascade-based ToT model for civic teacher training, information only flows in a top-down manner. There is little to no opportunity for information to flow vertically from teachers and peer educators to NaCCED representatives. While current efforts show a commitment to the new frontiers of inquiry and innovation during training sessions, teacher knowledge based on experience in the classroom and CoPs could be leveraged to inform ongoing support and programmatic modifications. To further develop the NaCCED’s train-the-trainer model into the approach of a collaborative learning organization, it is recommended to open vertical lines of communication between CoPs and department officials at the NaCCED, TSC, and MBSSE. This channel can engender insight on the gaps between policy and practice to improve future iterations of teacher professional development in addition to instilling a culture of collaboration and trust with civil society and their teacher workforce.

Inspiration for Vertical Channels of Communication.

We recommend peer educators collect information from their local CoPs and consult with key government bodies on educational needs and concerns to improve support measures and encourage policy change. A comparative example that models this approach is the South African NGO, BRIDGE, an organizational backbone that connects educators through CoPs. BRIDGE’s Early Childhood Development (ECD) CoP assisted department officials in drafting a second Children’s Amendment Bill (BRIDGE, 2021). This bill supports the increased safety, infrastructure, and funding for ECD programs and is directly

connected to the lived experiences raised by teachers in the CoP (BRIDGE, 2021). By inviting the voices of ground-level educational stakeholders, the South African government gained insight on the gaps between policy and practice and was aided by the CoP in helping to close those gaps.

In the context of Sierra Leone, it is recommended the NaCCED implement a similar line of communication as a participatory decision-making mechanism from the classroom level to the education officials of the NaCCED and MBSSE. Under the recommended CoP model, a small-scale method to open a vertical line of communication could be utilized by peer educators of the local CoPs to document challenges and best practices that arise from group meetings and to report up the chain of communication.

13.5.2.3 Recommendation 3: Establish an Evaluation Plan for Continuous Learning

Finally, we recommend the NaCCED create an evaluation plan to monitor the impact of teacher professional development in conjunction with the CoPs. In addition to the existing qualitative surveys that aim to understand participants' experience in training sessions, we recommend conducting a formative evaluation to analyze the effectiveness of the current cascade training model and the proposed CoP's impact on teacher preparedness and practice. This recommendation can help inform improvements in future professional development iterations, as well as cultivate a more responsive feedback loop involving all education sector stakeholders, from teachers to administrative officials at the MBSSE, TSC, and NaCCED.

The TSC's 2020 National Policy on Teacher Professional Development and Performance explicitly emphasizes continuing professional development (CPD) as a right and responsibility of teachers, and the need for them to have an active voice in their own professional development learning (TSC, 2020). A notable feature of the policy is its emphasis on the appraisal exercises for teachers' achievement and professional growth objectives. This is in strong alignment with the UNESCO report, which recognizes teachers' autonomy as

an important factor for teachers' motivation (UNESCO, 2021). Formatively evaluating the impact of CoPs would help to personalize the professional growth of every teacher. This could lead to teachers' increased ownership of their career trajectory and thus motivation for success, while also enriching the collaboration experience among teachers with diverse strengths and needs.

Leveraging Technology for Evaluation

The MBSSE is utilizing technology to support data-driven service delivery and evidence-based decision-making to improve teacher professional development (World Bank, 2021). This approach is in alignment with the TSC's vision to offer collaborative and customized CPD to teachers. However, there is no comprehensive method in place to monitor the effectiveness of teachers or monitor the adoption of new pedagogies in the delivery of the civics curriculum (A. Tajawie, personal communication, December 15, 2021). To support a more uniform CPD model across all subjects and teacher training organizations, we recommend extending the CPD model that exists for English, math, and science subjects to include the civics subject. To evaluate and assess the effectiveness of civics teacher development and the proposed CoP model, we also recommend enhancing the already existing One Tablet Per School Program (OTPS) and the World Bank's Global Coach Program to include civics education.

Through these two aforementioned programs, tablets are used in each school to collect and verify data on teacher registration, pupil enrollment, and teacher and pupil attendance (McBurnie, 2021). The TSC is currently piloting the use of these tablets to also support in-service teacher professional development for English, math, and science, funded in part by the World Bank's Global Coach Program (Bernal, 2021). We see potential to expand this model to include civic teachers, whose preparation, practice, and progress within the CoP could be monitored. Rather than only using this data for traditional assessment measures, it could also be used to inform the emerging civic education professional development and future policies.

13.6 Conclusion

It is clear the MBSSE is making great strides toward cultivating civic literacy among its teachers and learners. The new civic education program deeply aligns with UNESCO's educational vision, specifically empowering teachers as collaborative and lifelong learners, connecting civic agency and communal well-being, and nurturing schools as learning organizations (UNESCO, 2021).

The holistic implementation of our connected recommendations offers a feasible, timely, and sustainable approach to support these efforts and further actualize the goal of building schools that cultivate empowered, equity-promoting citizens. With our recommendations in place, we see a pathway for the civics curriculum to model for other subjects the learner-centered pedagogical shift aspired by the new BNCF. Ultimately, this work is about empowering learners and teachers to creatively, critically, and consciously take responsibility for the lives they lead, the learning they engage in, and the world they are helping to build together.

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Chapter Fourteen. South Africa

Toward More Equitable Education Futures

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Abstract

Despite progress in improving educational access and quality since the end of apartheid in 1994, South Africa's basic education system faces persistent challenges, including structural inequality, variable teacher quality, and a lack of representation in languages of instruction, contributing to poor learning outcomes in both foundational skills and broader competencies for the changing world. In this chapter, we outline how the education sector has responded to these challenges, and we place the system in conversation with the 2021 UNESCO Report, *Reimagining our futures together: A new social contract for education*. Based on this analysis, we provide recommendations in two broad categories – Curriculum & Pedagogy, and Teacher Quality – to highlight levers for short, medium, and long-term systemic improvement.

These recommendations have been summarized below:

Curriculum & Pedagogy:

- Broad-based development of a curriculum competency framework and supports
- Structured pedagogy and Teaching at the Right Level approach
- Later transition to English as the Language of Learning and Teaching (Grade 7)

Teacher Education:

- Lesson study model for collaborative professional development
- Teacher pathways, including teacher-researcher
- Apprenticeship model of initial teacher education

14.1. Context

After a long history of legalized racial discrimination, South Africa officially ‘deracialized’ and consolidated its segregated education system in the 1990s. Twenty-seven years after the end of apartheid, however, inequality remains one of the defining characteristics of South African society, and of its education system.

14.1.1. Teachers: *Teacher quality and education*

Due in large part to inherited systemic inequalities, there is variation in teacher quality across the country (National Planning Commission, 2012). This is linked to the quality of initial teacher education, which varies across institutions (Taylor, 2014), and a lack of high-quality in-service professional development programs (Muller & Hoadley, 2019).

14.1.2. Curriculum and Pedagogy: *Language of Learning and Teaching*

Despite the recognition of eleven official languages in the Constitution and broad consensus on the benefits of mother tongue instruction among policymakers, indigenous African languages continue to be marginalized in the education system (Mohohlwane, 2019). There is a relative lack of established knowledge on how to teach reading in these languages (Gustafsson, 2019), and curriculum resources to teach in African languages have only been developed for grades R-3 across all subjects. The imperative for mother tongue instruction in

primary school is complicated by the economic power of English and its links with social mobility (Mohohlwane, 2020).

14.1.3. Curriculum and Pedagogy: *Learning outcomes*

While South Africa has achieved almost universal access to basic education, educational quality remains an elusive goal, with learning outcomes consistently reflecting systemic inequalities (Spaull, 2015). For example, in the 2019 Trends in International Mathematics and Science Study (TIMSS), 76% of grade 5 learners in the poorest ‘no-fee’ schools failed to reach the lowest international benchmark for mathematics, while only 32% of learners in wealthier schools fell into this category (Reddy et al., 2021). The TIMSS and other international assessments show that most South African schools are failing to equip learners with the foundational literacy and numeracy skills needed for academic and career success (Spaull & Pretorius, 2019). This contributes to high rates of grade repetition in the early years of schooling, which in turn contributes to dropout in later years: of all the learners who begin grade 1, only 52% eventually pass the grade 12 exit examination (DBE, 2020). In addition to what Rebecca Winthrop terms “skills inequality”, the South African basic education system also faces “skills uncertainty” (2018, p. 24), whereby the skills and competencies required for success in our rapidly changing world are not deliberately taught in most public schools (Care et al., 2017).

14.2. Government Response and UNESCO Alignment

The 2021 report by the UNESCO Commission for the Futures of Education, *Reimagining our futures together: A new social contract for education*, presents provocative ideas, and invites jurisdictions to engage in dialogue around principles of solidarity and interconnectedness, as they relate to each unique context. In the following section, we outline some of the key actions taken by the South African Department of Basic Education (DBE) to address the challenges highlighted above, and we discuss how aspects of this system relate to relevant ideas in UNESCO’s report about collaboration, equity, and competencies for a changing world.

14.2.1. Teachers: *Teacher quality and education*

Although efforts in the early 2000s to improve support and accountability for teachers largely failed to resolve gaps in teacher content knowledge, they provided a precursor to current teacher development efforts. Since 2010, programs incorporating a structured pedagogy approach with teacher training and coaching have shown promising results in low-quintile public schools, particularly in the early grades (Shalem & De Clercq, 2019).

Regarding initial teacher education (ITE), in the 1990s, previously racially segregated teacher colleges were closed and absorbed into existing universities, with a revised and consolidated ITE curriculum and framework (Sayed, 2018). The latest iteration of the framework conceptualizes the teacher's roles as "life-long learner" and "researcher," who also plays a "community, citizenship, and pastoral role" (Sayed, 2018, p. 31).

Recently, the South African Council for Educators (SACE), the government agency responsible for the certification and professional development of teachers, established a teacher professionalization path and national Professional Teaching Standards, which seek to enhance the status of the teaching profession and address variable teaching quality (SACE 2020a; SACE 2020b). This path introduces a 12-month induction program for first-year teachers, as well as a renewable three-year cycle of the Continuing Professional Teacher Development system (SACE, 2020a). This induction program reflects UNESCO's ideas on a "collaboration across teaching generations" (UNESCO, 2021, p. 100). The second standard in SACE's Professional Teaching Standards highlights the importance of collaboration: "Teachers collaborate with others to support teaching, learning and their professional development" (SACE, 2020b). This is in line with UNESCO's call to reimagine teaching as a "collaborative profession" (2021, p. 93). Despite the intention to establish collaboration as a professional standard, there is limited opportunity for South African teachers to collaborate within and beyond their own schools. In a recent study, teachers and heads of departments

stated that professional development opportunities were inadequate, and that they wanted more chances to collaborate with other schools and organizations (Ajani, 2020).

14.2.2. Curriculum and Pedagogy: *Language of Learning and Teaching*

In recognition of the importance of mother-tongue instruction in the early grades of schooling, most public schools teach in African languages until grade 3, before transitioning to English (or sometimes, Afrikaans) as the Language of Learning and Teaching (LoLT) in grade 4 (Gustafsson, 2019). This is despite the fact that the South African Constitution and the South African Schools Act allow for teaching in African languages throughout school, or at least until grade 6 (Wet, 2002). While some English-medium schools offer African languages as additional languages, they lack adequate reading benchmarks, standards, academic vocabulary, and evidence-based programs on how to teach these languages (Mohohlwane, 2019). As most schools do not provide instruction in African languages beyond grade 3, systemic divisions continue to disadvantage black students, who make up the majority of the population (Mohohlwane, 2019). UNESCO's report draws on a global analysis of the results of Programme for International Reading Literacy Survey (PIRLS) to show that "grade 4 students who did not speak the language of the test at home were less likely than other students to reach the lowest level of proficiency in reading" (2021, p.36). This disparity supports the need to alter South African education policy to support LoLT in indigenous languages, and to work toward greater multilingualism in a changing world.

14.2.3. Curriculum and Pedagogy: *Learning outcomes*

To address continuing challenges in educational quality, between 2012 and 2014, the DBE introduced the Curriculum and Assessment Policy Statement (CAPS), a content-driven system, to replace the existing National Curriculum Statement (NCS), an outcomes-based system. Reasons for this change

included poor performance in local and international assessments, an unmanageable workload for teachers, and internal inconsistencies in policy (Umalusi, 2014). In response to criticism that the NCS provided too much freedom to educators and resulted in poor and unequal outcomes for students, CAPS is characterized by a decrease in teacher autonomy (Makonye & Ramatlapana 2013). Successes of CAPS include that it is “highly specified with respect to subject content, as well as its sequencing and pacing demands,” which helps to guide teachers, textbook writers, examiners, and teacher training institutions (Muller & Hoadley, 2019, p.120). However, a limiting “communalizing pedagogy” has also continued into CAPS from the apartheid era, in which classes are treated homogeneously, with a “heavy reliance on memorization and chorusing” (Muller & Hoadley, 2019, pp.121-123).

There is alignment in policy between CAPS and UNESCO regarding the topics of interconnectedness and the shared future of people, evidenced by CAPS’ vision statements, which outline competencies related to human rights, inclusivity, environmental and social justice, teamwork, and science and technology skills (DBE, 2011). However, there is a gap between apparent compatibility and actual pedagogical practice, evidenced by poor academic outcomes (van der Berg & Gustafsson, 2019) and a lack of clarity on how to teach these “skills for a changing world” (Care et al., 2017). This stems, in part, from the fact that “teachers feel ill-equipped to teach competencies that they themselves do not have or know how to teach, such as technology and computer skills” (Care et. al, 2017, p.29). An opportunity therefore exists for practice to more closely align with stated policy objectives.

14.3. Recommendations

The following recommendations draw on UNESCO’s call to reimagine a new social contract for education, highlighting the curriculum and teachers as key levers for broad-based change, insofar as they form part of the “instructional core” (City et al., 2009, p.15) of education. The theory of action underpinning our recommendations could be articulated as follows: *If there are*

collaborative efforts to improve the relevance of the curriculum (i.e., the development of a competency framework, greater emphasis on mother-tongue instruction, and the development of quality resources aligned to these changes), *and* teachers are adequately supported to implement the strengthened curriculum in context (through structured pedagogy and differentiation), *and* structures exist to promote teacher autonomy, collaboration, and personalization (i.e., teacher-centric professional development, teacher pathways, and apprenticeship models for initial teacher education), *then* there will be improvements in learners' foundational skills and broader competencies, and in teachers' autonomy and professionalism.

While these recommendations are complementary, we view the proposals related to curriculum and pedagogical supports for teachers as short to medium-term priorities, while changes to the structure of the teaching profession and initial teacher education should be viewed with a medium to long-term lens.

A note on implementation at scale

We recognize that some of these recommendations have been proposed or piloted in South Africa, with varying levels of success at scale (J. Naidoo, personal communication). One of the fundamental challenges to implementation at scale in South Africa is the variation in technical and governance capacity across regions, largely as a legacy of apartheid spatial planning and differentiated development (Levy et al., 2018). This means that some schools, districts, and provinces have the capacity to successfully implement programs, while others are hindered by financial, technical, and/or political factors. While it is beyond the scope of this paper to delve deeply into issues of scalability, we propose the following considerations to strengthen this area:

- Broad-based dialogue and participation in the development of the strengthened curriculum, to enhance system-wide understanding and co-creation of a vision for South African education
- Increased collaboration across actors (e.g., civil society, universities, schools, community organizations) and

sectors (e.g., higher education, business) to enhance alignment and strengthen system capacity

- Differentiation and a modular approach to certain interventions (e.g., structured pedagogy/TaRL programs), to allow for greater flexibility in addressing contextual needs and constraints
- Greater focus on strengthening districts' technical and governance capacity to support schools. This could include research and programs.

Recommendations

14.3.1. Curriculum and Pedagogy: *Skills for a changing world*

As outlined above, the South African curriculum implicitly contains many of the competencies needed for success in a changing world, but most teachers lack tools and support to ensure that these competencies are deliberately taught (Care et al., 2017). The DBE has announced that it intends to implement a “curriculum with skills and competencies for a changing world” post-COVID (DBE, 2020) and work has begun in this regard, to conceptualize what a strengthened curriculum could look like, without a complete curriculum overhaul. This work has included drafting a potential competency framework for discussion, based on comparative research (S. Eadie, personal communication, December 2, 2021) and plans to streamline the curriculum to enable “deeper learning” (DBE, 2021). This work aligns with international research on how to develop deep conceptual knowledge alongside social, emotional, and cognitive competencies (Fadel et al., 2015; Pellegrino and Hilton, 2012).

As a continuation of this work, we recommend that the DBE take a collaborative approach to co-creating a vision for the future of South African education, involving key stakeholders such as provincial departments of education, districts, unions, SGBs, universities, and civil society organizations. The recent case of neighboring Zimbabwe could be instructive in this regard, as it went through a comprehensive national

consultation process involving almost 1 million people, in preparation for its 2015 curriculum reform (Gory et al., 2021). Similarly, Brazil went through multiple phases of design, consultation, and iteration in its development of common curricular standards, during which over 12 million submissions were made on the draft curriculum (Costin & Pontual, 2020). Such discussions could proceed in phases, using the draft competency framework and later a logical framework and draft curricula as points of departure for discussion and iteration. The value of a logical framework is that it makes explicit the translation of theory into practice, and it enables public discussion to facilitate shared understanding (Reimers, 2021).

We would also recommend the development of detailed, multipronged support for teachers and other implementers of the reform, in the form of materials and aligned professional development opportunities. Past cases of ambitious curricular reforms in South Africa and around the world have demonstrated the importance of appropriate support, and the need for clarity on standards and pedagogies, aligned to the goals of the curriculum. These support materials could take the form of teacher guides (as in Zimbabwe - Gory et al., 2020), example lesson plans, textbooks (as in Brazil - Costin and Pontual, 2020), and more structured pedagogical guides that explicitly outline competency development alongside foundational skills and content knowledge.

Curriculum and Pedagogy: Learning Outcomes

Structured pedagogy programs have shown great potential to improve students' learning outcomes in foundational literacy and mathematics, both in South Africa and other contexts (Piper and Dubeck, 2021). We therefore recommend that the South African basic education sector continue to develop these programs, in line with the planned curricular revisions, and to incorporate approaches that provide for differentiated support in meeting individual student needs. This recommendation aims to support those learners who are promoted without the competencies to succeed at the following grade level, and recognizes that “teachers have an important role to play in

helping to personalize learning so it is authentic and relevant” (UNESCO, 2021, pp. 95-96). In pursuit of this objective, we recommend the education system continue to fund and scale the Reading and Support Project (RSP) and adopt a similar model for mathematics instruction. Our recommendation includes continued funding of evaluative research and iterative improvement strategies related to foundational skill interventions to continue the learning and improvement cycle.

The RSP originated in part from the DBE’s Early Grade Reading Study (EGRS), which assessed the contextual suitability of multiple educational interventions to conclude that structured learning and on-site coaching had the most significant impact, with students who received the intervention being 40% of a year ahead of students in the control group. The intervention provided teachers with structured pedagogy, on-site coaching support, and small group training sessions (DBE, 2017; P. Groome, personal correspondence, 2021). In 2017, the EGRS II was expanded to six schools in Mpumalanga and filled several gaps in literacy instruction (Botha & Schollar, 2018). In 2019, the RSP used findings from the EGRS to revise strategy and improve student outcomes in African Home Languages and English as a First Additional Language. The lessons from these studies are now being considered for widespread implementation in South Africa (Seakamela, 2021).

We recommend that studies like the EGRS and the RSP receive support to expand in the remaining provinces, not only due to these significant findings, but because of their ability to grow alongside Teaching at the Right Level (TaRL), a foundational skills intervention of notable impact in India and Sub-Saharan Africa. Established by Pratham in the early 2000s, TaRL functions by “dividing children (generally in Grades 3 to 5) into groups based on learning needs rather than age or grade; dedicating time to basic skills rather than focusing solely on the curriculum; and regularly assessing student performance, rather than relying only on end-of-year examinations” (TaRL, n.d.-a). For the past two years, the DG Murray Trust (DGMT), a South African strategic investor and public innovator, has funded TaRL-inspired literacy pilots in the Eastern Cape, Western Cape, and Kwazulu-Natal as part of the Zero Dropout Campaign to

halve the rate of school dropout by 2030 (M. Mansfield & P. Ndamase, personal correspondence, 2021). With the goal of providing foundational literacy skills and rekindling motivation for students performing under grade level, the DGMT hosted TaRL-inspired learning camps, primarily led by community volunteers, twice a week for one hour after the school day. With initial evidence suggesting significant gains for learner participants, we recommend conducting a rigorous evaluation of the intervention. Pending positive and statistically significant results, we suggest scaling this program across South Africa with versioning into indigenous African languages.

The success of TaRL has been demonstrated in at least ten other Sub-Saharan African countries. For example, Uganda – which has a similar percentage of students who are not proficient in reading (83%) to South Africa (80%) (The World Bank, 2019) – experienced significant improvements in learning outcomes. After implementing a high-impact literacy pilot at 10 schools during a 25-day intervention, the number of students who could read a simple paragraph increased from 2% to 37% (TaRL, n.d.-b). In the context of building back better from the COVID-19 pandemic, pairing the EGRS and RSP – structured pedagogy and coaching initiatives – with TaRL – a remediation skills program – provides part of the solution to addressing students’ long-term learning losses by providing differentiated support to meet individual learner needs (World Bank, UNICEF, and UNESCO, 2021).

Language of Instruction

To preserve the cultural diversity of the nation and improve educational outcomes for students whose mother tongue is an indigenous African language, we recommend the education system expand to allow for extended years of teaching in indigenous African languages, while continuing to support English language acquisition. From a political perspective, this decision is likely to garner the greatest buy-in among stakeholders because it does not promote the cultural hegemony of any one language, yet recognizes English as the common language of tertiary education and international discourse. In

alignment with the principles of the UNESCO report, this policy would “embrace a world that contains many lived realities rather than impose a singular vision of social and economic development” (UNESCO, 2021, p. 36) through the tangible preservation of indigenous languages. Moreover, from a human development perspective, this policy would promote optimal multilingual language acquisition among students as it offers structural provisions for (1) early exposure to different languages and (2) continued support for speaking both languages (McCabe et al., 2013). The additive multilingualism approach explains that if students have mastery in their native language, this will enable learning of additional languages (Mohohlwane, 2020). There is emerging consensus that “multilingualism is an international fact of life,” and this policy will enable students to gain the language abilities required for success in a changing and increasingly globalized world (McCabe et al., 2013).

In consideration of these perspectives, we recommend the uptake of a policy outlined by Nompumelelo Mohohlwane, South African scholar and Deputy Director at the DBE. These recommendations are: (1) “providing mother tongue education for the first six years within the existing language in education policies”, and (2) “making English compulsory as a First Additional Language” (2020, p. 2). To support the learning of African languages, Mohohlwane recommends offering an African First Additional Language at all levels of schooling, including tertiary (2020). These policies align with our views on increasing the number of years of study in students’ native language, continuing to support students’ English language learning, and prioritizing the preservation of South Africa’s linguistic and cultural diversity. As South Africa considers implementation and generating stakeholder buy-in, the lessons provided by the cultural revitalization processes of Māori Medium Education in Aotearoa, New Zealand and Aboriginal Head Start in Canada provide keen insight. These include placing indigenous peoples at the forefront of this effort, acknowledging historical “assimilative language and education policies,” providing information to families about policy reform, creating accompanying learning opportunities for families, and

balancing learning from local contexts and international case studies (Rameka & Stagg Peterson, 2021, pp. 320-321).

14.3.2. Teachers: *Teacher education*

To implement curricular and pedagogical changes, teacher capacity building through professional development will be needed. In a review of teacher professional development around the world, Villegas-Reimers (2003) describes the relationship between reform and professional development as one of reciprocity: reforms that do not include teachers and build their capacities will not be successful, and likewise, professional development programs that are not linked to policies will not achieve intended goals (Villegas-Reimers, 2003, p. 24). With this said, the successful implementation of the aforementioned curricular and pedagogical recommendations needs to be paired with effective teacher development efforts. Three recommendations pertain to the needs of South Africa's education system regarding teacher education:

- A teacher-centered approach to professional development (PD) offerings through a lesson study model;
- Providing avenues for teacher advancement through three teacher pathways;
- An apprentice-emphasis in initial teacher education

In early 2021, South Africa's Department of Planning, Monitoring, and Evaluation published a report, entitled *Rapid Review of Continuous Professional Development for Teachers in South Africa*. The report highlighted the challenges to effective teacher professional development: lack of time, lack of organized funding management, top-down professional development sessions that do not meet teachers' needs, lack of support structures, and the large amount of teacher responsibilities. Currently, professional learning communities (PLCs) are used in many schools (South African Department of Planning, Monitoring, and Evaluation [DPME], 2021). One professional development structure that can resolve the one-size-fits-all nature of current PD offerings and use the PLC culture that is

already in place is the Japanese lesson study model. This model was piloted in over 313 secondary schools in South Africa's Mpumalanga province from 1999 to 2006 with improvements in learning and teaching outcomes, but ultimately ended due to mismatch with organizational restructuring timelines and concurrent national reforms (Ono & Ferreira, 2010). It is a model that merits revisiting in light of the current collaborative needs in South Africa.

Lesson study is a teacher-led, collaborative approach to professional development. A lesson study group consists of teachers from the same subject area or the same grade level (Ono & Ferreira, 2010), and can take place within a PLC or a Planning Team, a component of a teacher pathway which will be discussed in detail later. Lesson study cycles through three stages, commonly known as “plan-do-see.” In the planning phase, teachers decide on a focus topic and the goals that they want to achieve (Ono & Ferreira, 2010). They think of ways to achieve those goals, exploring resources and prior research, speaking with subject area specialists such as university professors, and creating research lessons in the process. This stage also allows teachers to strengthen their content knowledge as they seek to fill in gaps in their understanding of the topic (Lewis, 2002). In the ‘doing’ phase, one of the teachers in the lesson study group conducts the lesson while the other teachers observe. They look at student responses and behaviors, teacher actions, and lesson execution, while they take notes on the lesson plan that they had previously co-created. In the final stage, the lesson study group gathers after the lesson to discuss the observations. The teacher who taught the lesson debriefs the others on their desired lesson objectives and any important aspects of the lesson, after which the others contribute ideas for improving the lesson (Ono & Ferreira, 2010). The findings from this lesson are then used to improve the same lesson for another round of study (but taught by a different teacher) or the group may decide to explore a new topic. Thus, the cycle of lesson study repeats again. Each cycle results in a written report that comprises a lesson plan, student observations, and group reflections on the research lesson (Lewis, 2002).

Recent literature on professional development in South Africa points to teachers' desire for PD choices that pertain to their specific needs (Bertram et al., 2018; Christiansen & Bertram, 2019). This theme of meeting teachers' context-specific needs is reiterated in the 2021 *Rapid Review* report, which calls for "appropriate and targeted" professional development under the rationale that "an evidence-driven, differentiated and gradualist approach with built-in evaluation can result in maximizing the impact of CPD [continuous professional development] programs" (DPME, 2021, p. 2). Lesson study intrinsically offers this differentiated approach, since focus topics and goals are set by teachers themselves, informed by the issues that are relevant to their contexts and to their students' needs. Results from the Mpumalanga Secondary School Initiative (MSSI) showed that teaching practices improved, and teachers reported that lesson outcomes were achieved. Moreover, with its reliance on collaboration, lesson study supports a re-envisioning of teaching as a joint endeavor within a community of educators and specialists, much in line with the recommendations provided in the UNESCO report (2021). One weakness identified in this model was that teachers needed more support in the implementation of lesson study practices, rather than the short-duration training that they were provided (Ono & Ferreira, 2010). The sustainability and efficacy of lesson study implementation requires proper support at the school and district organizational level and can also be supported by the creation of an integrated teacher-researcher role.

Teachers: Teacher-Researcher Integration and Teacher Pathways

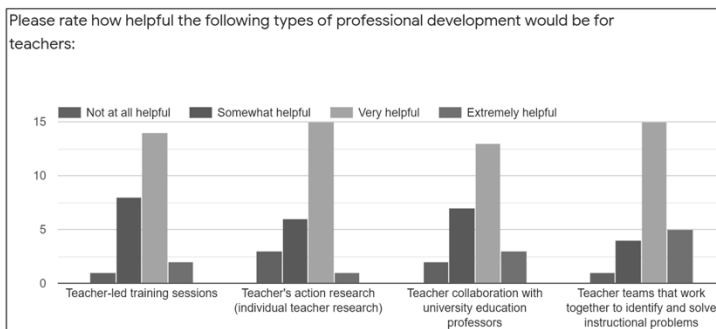
The teacher-researcher integration is a shift whereby a classroom teacher is not only an instructional educator, but also a school-based researcher. Such research integration requires the formation of two types of collaborative groups within every participating school: a Research Team and a Planning Team. The Research Team would consist of content teachers developing action research that is relevant to the student body (Jensen, 2012). The Planning Team would be a micro-version of the research group, consisting of teachers that are in the same content and grade level, who would meet to pool resources,

examine student progress, and plan lessons together. The Planning Team would provide a common infrastructure for currently existing PLCs, and also serve as the vehicle for supporting lesson study groups. Shanghai policy makers, who have implemented this model, point to research that shows that “teachers who exchange ideas and coordinate practices report better teacher-student relationship, a significant predictor of student achievement” (Jensen, 2012, p 89).

Classroom teachers having a research role can alleviate not only the problem of teacher status, but also teacher quality and teacher accountability. In many jurisdictions, teacher quality and accountability are addressed through top-down professional development and high-stakes evaluations, but South Africa can consider improving quality through horizontal collaboration. When research is conducted by co-teachers—in contrast to distant provincial or university researchers—teacher practices and development will also be uniquely tailored to teachers’ contexts.

Our own small survey of twenty-five South African teachers from ten primary schools across the Waterberg district in Limpopo – see Figure 1 below – suggested that teachers would generally be open to teacher-led collaboration and research.

Figure 1: Teacher Survey



Larger international studies also state that “professional collaboration has been shown to have a significant impact on teaching effectiveness and classroom learning” (Jensen, 2012, p.

95). Continuous observations and collaboration promote horizontal professional development and lateral accountability, that can include peer monitoring, social pressure, teacher’s building on each other’s strengths and weaknesses, and better observational understandings of the pedagogy itself (Jensen, 2007, p. 92). Structures for research and collaboration can be further optimized by reimagining the profession of teaching by forming distinct career pathways.

Three teacher pathways, each with three different purposes—as outlined in Figure 2—are recommended as a means of increasing autonomy and choice for teachers, as well as contributing to enhancing the status of the profession. A three-ladder career track, also found in Singapore’s system, can positively improve the teaching status as a profession, address the issue of teacher turnover rates, and prevent the trend of promotion leading to the best teachers leaving the classrooms (Jensen, 2012). Moreover, this three-track structure aligns with the Rapid Review report’s call for incentives in acquiring Continuing Professional Development (CPD) points, and tiered structures for PD at the national, provincial, district, and school levels. The tiered structures described in the report include the creation of the National Institute for Curriculum and Professional Development (NICPD), and the strengthening of Provincial Teacher Development Institutes (PTDI) and District Teacher Development Centers (DTDS) (DPME, 2021). This infrastructure would support the multiple levels of the Expert Teacher Pathway, where a high-performing teacher can continue onwards to advanced roles through expertise-driven responsibilities as expert teachers at DTDS, PTDI, and NICPD.

Figure 2: Teacher Pathways for South Africa

<i>Leadership Track</i>	<i>Expert Teacher Track</i>	<i>Specialist Track</i>
<u>Classroom Teacher</u> : Most teachers stay in this category, and advancement is optional through interests and potential.		

<p><u>Subject/Grade Level Head:</u></p> <ul style="list-style-type: none"> ● Organizes team in instruction & logistics ● Teaching responsibility reduced by 20% 	<p><u>Senior Teacher:</u></p> <ul style="list-style-type: none"> ● Mentors 1st and 2nd year teachers ● Reaches position after approx. 5 years ● Teaching responsibility reduced by 20% 	<p><u>Specialist Roles</u></p> <ul style="list-style-type: none"> ● Track is less differentiated ; promotion occurs through research production for their field ● Teachers who are experts on subject matter leave classroom to work with DBE & Universities
<p><u>Head of Departments:</u></p> <ul style="list-style-type: none"> ● Advises whole department ● Liaison to school administration ● Teaching responsibility reduced by 33% 	<p><u>Lead Teacher:</u></p> <ul style="list-style-type: none"> ● Facilitates research ● Uses the lesson study model for the Planning Team ● Works with Specialists ● Teaching responsibility reduced by 33%, 	<ul style="list-style-type: none"> ● Connect with Lead Teachers and Master Teachers in guidance of research topics
<p><u>Vice Principal</u></p> <ul style="list-style-type: none"> ● Assists principal ● Leads teacher evaluations ● No formal 	<p><u>Master Teachers:</u></p> <ul style="list-style-type: none"> ● Lead curriculum innovation at DBE ● Introduce new 	<p><u>Four Positions</u></p> <ol style="list-style-type: none"> 1. Senior Specialist 2. Lead Specialist 3. Principal Specialist 4. Chief

<p>teaching <u>Principal</u></p> <ul style="list-style-type: none"> Leads the school 	<p>methodologies for cluster of schools</p> <ul style="list-style-type: none"> Occasionally teaches master classes at schools 	<p>Specialist</p>
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Modeled after Shanghai's Teacher Career Tracks (Jensen, 2012)

Connecting Research & Teacher Pathways

For structural organization, as well as professional development, the Expert Teacher Track will be important for the coordination of research topics and teacher development. Specifically, Lead Teachers and Master Teachers will facilitate the work of research with university researchers, DBE research specialists, and other co-teachers. With the coordination of Lead and Master teachers, content teachers set research topics aimed at improving student achievement, in alignment with their own professional interests. In Shanghai, where research and collaboration are already entrenched, "[m]embers spend the first two months undertaking a literature review, and the remaining ten months of the year in the classroom trialing the application of evidence-based theory. Master and advanced teachers lead less experienced teachers through the process" (Jensen, 2012, p. 94). The application of the evidence and research comes into play with the Planning Team (in alignment with the lesson study model), in which members of the same grade-level can plan, collaborate, execute, and observe as continuous forms of professional development and accountability.

This method of collaboration does not need to exist solely among teachers, but can also be applied with a cluster of neighboring schools. Under the network of Master teachers, implementation practices, research resources, and applicable activities can be shared between schools. Such collaboration can also be a hub to invite civil society organizations, universities,

the DBE, and the broader community to engage in the work of best practices for schools, families, and communities.

Teachers: Initial Teacher Education

In South Africa and many other contexts, there is often a disconnect between the theoretical components of initial teacher education and the application of theory in a classroom (Taylor, 2014). This is a missed opportunity as teacher candidates in universities are valuable human resources that can be deployed in classrooms as early as their first year of initial teacher education to assist teachers, as schools currently struggle with capacity. Therefore, as opposed to spending significant time in university classrooms or – as is often the case in South Africa – in distance education, teacher candidates could benefit from an apprenticeship model in which they spend a large majority of their initial teacher preparation in grade R-12 classrooms.

There is a host of literature on apprenticeship as a model in other professions, such as medicine, as well as in education (Heineke, 2018; Rogoff, 2014; Rassie, 2017). For example, Cambridge University collaborated with schools to create an “80:20 model, meaning that the teacher is in-school four days per week while the fifth day is reserved for professional instruction” (Yeigh & Lynch, 2017, p. 127). Similarly, a university-based initial teacher education program in the United Kingdom combines apprenticeship with lesson study as “an alternative approach to common patterns of school-based experience whereby PSTs [pre-service teachers or teacher candidates] observe expert practitioners, imitate what they have seen before receiving critical feedback from the class teacher...an apprenticeship model of learning to teach” (Lamb, 2015, pg 344). Australia’s Bachelor Learning Management program is “designed to develop a strong partnership between the university and the teaching community” by sending teacher candidates to “an allocated school or learning site for embedded practice from day 1 of the degree” (Yeigh & Lynch, 2017, p. 119). Studies indicate that graduates of this model are generally better prepared than graduates of traditional initial education programs (Yeigh & Lynch, 2017).

This policy lever would benefit both teaching quality and teaching capacity in schools. In schools that lack human resources for small groups, tutoring, and routine psychosocial supports such as well-being check-ups, teacher candidates can fill this gap. It would also benefit the candidates themselves, as they would have significant experience in the classroom before they officially enter schools as novice teachers.

For these policy recommendations to take place, stakeholders—teachers, administrators, researchers, officials in the DBE, university leaders, civil society, and families—need to implement changes gradually. Intentional sequencing will allow stakeholders to accept the behavioral changes needed in this different way of schooling. Studies of systems that implemented variations of these recommendations found that “[m]ore ‘radical’ phases of the strategy were piloted and implemented incrementally in order to allow stakeholders to adjust to the changes” (Jensen, 2012, p. 45). Finally, it is important for the broader education ecosystem—specifically, universities, the NECT, and the DBE—to provide structural support for teachers, such as the explicit restructuring of timetables (informed by feedback from teachers and parents) and broader infrastructure support (e.g. providing digital platforms, as well as collaboration spaces within schools and communities). This aligns with South Africa’s *Rapid Review* that recommends “[a]llocating time in the school schedule/ timetable to encourage school-based CPD and innovation” (DPME, 2021, p.15), as well as with UNESCO’s call for the “transformation of schools across different times and spaces” (2021).

With any systemic reform, those on the ground are most affected as it may overload their current work or become an administrative burden that affects their capacity for instruction. Therefore, it is important to highlight that these three recommendations need to be implemented as a bundle. Teachers cannot be researchers without the implementation of a new career track that incentivizes their research, nor can teachers be incentivized to take on leadership roles without addressing the lack of human resources through the shifting of teacher candidates in universities. Essentially, these three recommendations seek to give teachers greater incentives, more

time to plan their lessons, and more collaborative resources to improve learning. Teacher quality is a component of an education system that we can specifically target to improve student learning outcomes (Darling-Hammond, cited in Goodwin et al., 2015). Through intentional collaboration, these recommendations attempt to address the pervasive and endemic obstacles we see in school systems, namely teacher quality and development, teacher accountability, teacher status, and teacher capacity.

14.4. Conclusion

Having made strides in improving access and quality of basic education, South Africa seeks to address persistent challenges, build on successes, and think more deliberately about the long-term relevance of the education system. In this regard, we have identified three themes from UNESCO's report, *Reimagining our futures together: A new social contract for education*, that are relevant to South African education: A greater emphasis on collaboration and personalization in the teaching profession; working towards greater equity, inclusion, and redress through education; and the importance of broad competencies for teachers and learners in a rapidly changing world. Our recommendations highlight curriculum strengthening, structured pedagogy and differentiation, language reform, teacher-centric professional development, teacher professional pathways, and an apprenticeship model for initial teacher education as levers for system improvement in the short, medium, and long-term with personalization, collaboration, and relevance as key imperatives across these streams.

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Chapter Fifteen. Central Falls, United States

Shaping the Futures of Education for Multilingual Learners in Central Falls

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Abstract

UNESCO's report, *Reimagining Our Futures Together: A New Social Contract for Education* (henceforth, 'the UNESCO report') (UNESCO, 2021), invites the world to re-envision the ways in which learning and knowing can change humanity's collective future. This paper considers how the UNESCO report aligns with two education reforms in Central Falls, United States that are working towards better meeting the needs of the multilingual learner (MLL) population. To do this, the paper first reviews ongoing state and district interventions to improve MLLs' academic achievement, graduation rates, and post-secondary participation in Central Falls School District (henceforth, 'CFSD') and considers the root causes behind these metrics. It then examines areas of CFSD's state and district reforms whereby further alignment with the UNESCO report is possible. By drawing on evidence behind successful MLL education, including research on best practices and primary data collection, this paper proposes the following recommendations to CFSD to achieve further align with the UNESCO report and improve equity, empowerment, and excellence for MLL students: 1) establishing and maintaining a Caregiver-Teacher Design Team between MLL caregivers and teachers; 2) ensuring high quality and sustainable MLL curricula through a bounded autonomy model with teachers and administrators; 3) developing a co-operative continuum of professional development for CFSD teachers.

15.1 Introduction

CFSD is a small school district in the state of Rhode Island (henceforth, 'RI'), U.S. comprising a preschool, two elementary schools, a middle school, a high school, and a dual language academy. Its mission is to uphold "environments and experiences which create a culture of learning [in order] to challenge the status quo and reverse historical patterns of inequities" (RIDE). CFSD is home to nearly 2900 students, 82% of whom speak at least one other language at home besides English, and 48% of whom are MLLs (Paez & Reimers, 2020). Although the district is committed to equity, empowerment, and excellence, MLLs consistently perform lower when compared to English-speaking peers in terms of academic achievement, graduation rates, and post-secondary participation (RIDE).

This paper will first outline CFSD within the context of Central Falls and identify three root causes driving MLLs' achievement gap: caregiver involvement & support, relevant and sustainable curricula, and teacher capacity to serve MLLs. These root causes will then be used to frame areas of opportunity for the reforms at the state and district level to align with the UNESCO report. Finally, we will draw upon existing research and best practices from comparative case studies to explore different policy alternatives that can enable CFSD to refine its own MLL education reform while aligning with UNESCO's vision. Ultimately, we argue that if CFSD implements a three-pronged strategy consisting of 1) establishing and maintaining a Caregiver-Teacher Design Team, 2) ensuring high quality and sustainable MLL curricula through a bounded autonomy model with teachers and administrators, and 3) developing a co-operative continuum of professional development for CFSD teachers, then MLL academic achievement in the district is likely to improve.

15.2 CFSD in the context of Central Falls

15.2.1 Demographic & Socio-economic Context

Historically a mill town, present-day Central Falls' residents engage primarily in manufacturing, administrative and waste

management services, and retail trade (Central Falls, RI, n.d.). The city boasts a rich ethnic makeup, the four largest groups being White (Hispanic) (28.7%), Other (Hispanic) (28.4%), White (Non-Hispanic) (19.8%), and Black or African American (Non-Hispanic) (8.57%). CFSD represents an equally diverse population of students, with 85% identifying as other than White (majority Hispanic) (CFSD, 2021). The 2019 median household income in Central Falls was \$32,982 compared to \$71,169 in RI (US Census, 2019). Roughly 30% of CFSD students fell below the poverty line and received Supplemental Nutrition Assistance Program benefits in 2020 (RI KIDS COUNT, 2021a).

15.2.2 Academic Achievement of CFSD Students and CFSD MLL Students

CFSD reported a 69% high-school graduation rate in 2020 compared to 84% statewide (RI KIDS COUNT, 2021a, p. 153). Only 6% of Grade 8 CFSD students met reading expectations in 2019 compared to 36% across RI (Ibid., p. 147, 149). We posit that the main contributing factor to this disparity is the academic achievement gap of MLLs, who account for 45% of the CFSD student population (Ibid., p. 141).

Students identified as MLLs in CFSD live within multiple axes of marginalization, the most pronounced being race, income, and English proficiency (RI Kids Count, 2021b). While studies show that all three prongs can become barriers to high academic performance (American Psychological Association, 2017), data reveals that language proficiency is the strongest indicator of poor student achievement in CFSD. In fact, while 5.8% of economically disadvantaged CFSD students met expectations on SAT-Mathematics, performance was even lower among MLLs (unreported because less than <5%) (RIDE Assessment Data Portal). In SAT-English, only 12.6% of economically disadvantaged met expectations, while <5% of MLLs met expectations (Ibid.). These deficits in MLL education translate into long-term adverse impacts on academic success: nearly 1 in 4 CFSD MLLs dropped out of high school between 2018 and 2019 (RIDE).

With the arrival of the COVID-19 pandemic, MLL achievement has continued to suffer. Proficiency ratings on the standardized English Language Arts test decreased from 7.9% in 2019 to 4.3% in 2021 (RIDE Assessment Portal) and from 6% to 3% on the standardized math test (RICAS 2021, p. 15). Even though non-MLL student scores on the RICAS English Language Art/Literacy exam decreased from 15.7% to 13.0% (RIDE Assessment Portal), this group of students still performed better compared to their MLL peers. Meanwhile, recent ACCESS test (a national English proficiency test) scores confirm that CFSD MLL performance continues to stagnate at low achievement levels (internal data from ELLEvations, 2021). Hence, the data indicates that there is great need for stronger programs and initiatives to bring MLL achievement to parity with their non-MLL peers.

15.3 Root Causes Driving MLL Achievement Gap

To identify the root causes driving MLLs' achievement gap in CFSD, we engaged in a series of interviews with the district's Director of Equity, Empowerment and Excellence for English Learners, the principal of a CFSD elementary school, led two focus groups with nine teachers from the same school, and collected 11 survey answers from teachers across the district. While this small sample size is not representative of CFSD as a whole, the data reveals interesting factors that may be contributing to MLLs' low achievement, engagement, and college readiness. For example, our survey results show the following spread of issues ranked by teachers as "very important" to the improvement of MLL education in their school.

Issues ranked as "very important"	Number of teachers
Family Support	9
Let teachers decide curricula	6

Building spaces	5
Bilingual assessments	3
Cultural belonging	3
Bilingual teachers	1

Table 1: *Issues ranked “Very Important” by CFSD Teachers*

As Table 1 suggests, the most salient themes that emerged from our analysis, in order of importance, are the limited involvement of caregivers/family support in students’ education, the lack of relevant and sustainable MLL curricula, and constrained teacher capacity. These same themes - inadequate language services for MLL students, lack of English as a Second Language-certified teachers, and absence of communication with Limited English Proficient parents) - were also identified as key failures of the neighboring Providence School District in a Department of Justice case from 2018. Alongside research on MLL education, this provides further justification that these root causes speak to the reality of MLL education challenges in Central Falls and the state of RI at large (The United States Department of Justice, 2018).

15.3.1 Caregiver Involvement and Support

Our primary research, based on teacher surveys and focus groups, overwhelmingly indicated that, in order to set MLLs up for success, more explicit, strategic and meaningful involvement of caregivers in students’ education is required. This includes having an open line of communication between schools and caregivers in the latter’s native languages and involving them in students’ schoolwork and in decision-making processes at the school level.

The value of caregiver and family involvement is supported by a wide body of research, being as they are “supporters of

learning, encouragers of grit and determination, models of lifelong learning, and advocates of proper programming and placements for their child” and yield a definite impact on student’s achievement test scores, drop-out rates and sense of personal competence and efficacy for learning (SEDL, 2013, p. 2). In the case of MLL families, Li and Edwards (2010) highlight the importance of integrating literacy components to more effectively support caregiver and family involvement, whereby literacy serves not only communication but also the interpretation of values (p. 300). However, school involvement is challenging for low-income and limited-English-proficient caregivers (SEDL, 2013) due to barriers such as lack of formal education and knowledge of the mainstream U.S. culture and school systems, low English language proficiency, and time constraints from work and family responsibilities (Shin and Seger, (2016) p. 312).

15.3.2 Relevant and Sustainable MLL Curricula

Another root cause that emerged from our analysis of teacher data was the lack of relevant and sustainable MLL curricula. Firstly, there is a lack of quality bilingual materials that build on students’ cultural assets. Secondly, teachers lack a voice in determining which programs are implemented inside their classrooms. In our focus groups, teachers shared that they used personal funds to supplement what they perceived to be deficient MLL curricula. We learned that some teachers created their own instructional materials but did not have enough time to ensure these matched the student’s grade level or the rigor required by state academic standards or that they were culturally responsive. This reality, paired with the fact that curricula are often unilaterally decided by administrators, results in inconsistent MLL programming and services (Ibid.).

Such lack of access to “well-prepared educators using high-quality curriculum, language-rich pedagogy within a culturally and linguistically responsive school system” (Sienkiewicz, 2021) creates an opportunity gap for MLLs in CFSD. According to Ormrod (2011), “incorporating children’s culture as well as their native language into the classroom curriculum can further

promote their academic success.” This is because culturally relevant instructional materials enhance MLLs’ motivations to learn and enable them to feel secure and self-confident in their academic capabilities (Titone et. al, 2012).

Moreover, research shows that including teachers in curricular development increases their sense of ownership over curricula and, in turn, the curricula’s effectiveness (Goodson, 2014; Kennedy, 2010). Therefore, addressing teacher autonomy while ensuring teachers have access to materials that are relevant for MLLs’ learning needs is a key consideration of our analysis of the ongoing MLL education reforms.

15.3.3 Teacher Capacity

The final root cause that emerged from our primary research is teachers’ capacity to provide quality assistance to these learners. There are two aspects to teacher capacity that we need to acknowledge. First, while all CFSD teachers are required to be certified in English as a Second Language (henceforth, ‘ESL’), their inability to converse fluently in students’ native languages and to connect with them from a cultural standpoint act as barriers to effective teaching. Second, although the teacher to student ratio average in CFSD is 14 to 1 (National Center for Educational Statistics, 2020), some monolingual teachers shared that being in a classroom with 20 plus students without a translator makes teaching MLLs “nearly impossible.” With teachers feeling under-resourced and underprepared, it is not surprising that MLLs still lack access to quality education.

15.3.4 MLL Designated Funding

Considering root causes detailed above, it is important to also note that CFSD is currently using Elementary and Secondary School Emergency Relief (ESSER) II and III funds to subsidize equity measures such as MLL education, for which the budgeting weight for MLL students is 75% higher per pupil than for general education students (Paez, personal communication, October 15, 2021). Seeing as ESSER provides temporary funds for school districts to “safely reopen and sustain the safe

operation of schools and address the impact of the coronavirus pandemic” (Department of Education, 2021), there are concerns around the financial sustainability of new initiatives. (Anonymous interview with CFSD principal, 2021). Crucially, the precariousness of funding for MLL programming in CFSD amplifies the problems raised by the three root causes.

15.4. Reforms and UNESCO Alignment

This section outlines the two state and district reforms currently being implemented to address education opportunities for CFSD MLLs. It will also discuss the reforms’ alignment with the UNESCO report and assess the extent to which they address the root causes of MLL achievement in CFSD.

15.4.1 Rhode Island’s Blueprint for Multilingual Learner Success and CFSD’s Guiding Principles

The Blueprint for Multilingual Learner Success (henceforth, ‘the Blueprint’) is a statewide, comprehensive set of recommendations and 5-year implementation plan that targets the following areas of MLL learning: pedagogy, curriculum, teacher professionalization, relationships with family and community, and system-wide alignment for the state of Rhode Island. It was constructed by community stakeholders together with the Providence Public School District (Comprehensive Center Network, 2021). Its goal is that “MLLs in the state of RI are empowered with high-quality instructional opportunities, including multilingual education, that leverage their cultural and linguistic assets, promote college and career readiness, and prepare them to thrive socially, politically, and economically, both in [RI] and globally” (RIDE, 2021a, 4).

Meanwhile, CFSD’s own district reform was designed by the district’s Director of Equity, Empowerment and Excellence for English Learners, Dr. Sergio Paez. CFSD’s Guiding Principles (henceforth, ‘Guiding Principles’) are an invitation to “redefine CFSD’s interpretation of equity and preserve...MLLs’ civil rights to receive meaningful educational opportunities” (Paez, 2021b).

The Guiding Principles therefore act as a district-wide reform that aims to align with the Blueprint (Paez, 2021).

The next section provides an overview of how the Blueprint and Guiding Principles align with the UNESCO report. It will also discuss how these reforms can be improved for MLLs by being brought into further alignment with the UNESCO report.

15.4.2 Alignment with UNESCO Report

The UNESCO report (2021) outlines a new social contract in education reform for learning systems around the world. While the Blueprint and Guiding Principles were not born from the UNESCO report, there are areas of similar priorities and alignment among them. These areas of the UNESCO report that indicate significant alignment with the Blueprint and the Guiding Principles include: Curricula and the Evolving Knowledge Commons, Pedagogies of Cooperation & Solidarity, Transformative Work of Teachers, Safeguarding & Transforming Schools, and Education Across Time and Spaces. We find it promising that this alignment indicates a need to re-envision education in a holistic sense in CFSD, connecting the small district to a greater urgency in education reform worldwide. While the Blueprint and the Guiding Principles exhibit several important points of resonance with the vision of the UNESCO report, additional opportunities for greater alignment remain, particularly with respect to the root causes addressed earlier for CFSD's MLLs: caregiver involvement and support, relevant and sustainable curricula, and building teacher capacity. The next section will go into further detail on these gaps.

15.4.3 Addressing Gaps Between Root Causes and the UNESCO Report for Further Alignment

This section is a constructive analysis of areas where the UNESCO report and the Blueprint/Guiding Principles lack alignment. This is less of a critique and more of a way to propose areas of growth and opportunity for CFSD's reforms.

For example, in the area of caregiver support, the UNESCO report declares that “Adult learning and education must be further developed and supported...to embrace the transformative possibilities of education at all stages of life” (pp. 152-153). Yet, while the Blueprint’s website lists tips to establish a welcoming environment for MLL families and provides links for caregivers and district leaders to various federal and non-profit websites, these resources are absent from CFSD’s Guiding Principles’ implementation plan.

Moreover, neither reforms introduce directives that encourage teacher agency in deciding effective and sustainable academic programs and other initiatives targeted at MLLs, despite the UNESCO report calling teachers “key figures in education and social transformations” (p. 92). Additionally, while Goals 2, 3, and 4 of the state’s Blueprint call for coherent and effective systems of support for teachers and district leaders (RIDE, 2021a), neither reform lays out how such alignment is to actually occur throughout the district and in individual schools. Specifically, CFSD currently struggles with resistance from key actors on the topic of MLL learning reforms (Paez, personal communication, 2021).

Finally, it is important to realize that neither reform has run for a sufficient duration of time to fully assess their effectiveness. We conclude that the initiatives in MLL education will have greater, more holistic and sustainable impacts if the reforms are brought into closer synergy with the recommendations of the UNESCO report, particularly around the areas of the root causes mentioned at the beginning of this section. In the following section, we offer a series of recommendations that create such alignment.

15.5. Recommended Alternatives

We identified a number of alternatives that could enable CFSD to move its reforms for MLL achievement towards closer alignment with the UNESCO report, specifically through the lens of the three root causes outlined earlier in this paper. Collectively, our recommendations aim to empower the overall

collaboration and participation of caregivers and teachers in MLL success.

15.5.1 Recommendations for Caregiver Support: Building a Culture of Meaningful Partnerships Between Schools and MLL Caregivers

The UNESCO report emphasizes caregiver involvement as an essential component of school and student success (UNESCO, p. 59). From an ecological systems perspective (Bronfenbrenner & Morris, 1998), the dynamic between a child’s “microsystems”, or daily activities and relationships in places such as home and in school, are highly important to students’ performance and well-being (Niehaus & Adelson, 2014). This section lays out four alternatives to bolster caregiver support: a Dual Capacity-Building Framework, the design of a caregiver-teacher design team, adult English language development, and community partnerships to build workforce potential.

15.5.1.1 Building a Dual Capacity-Building Framework

The Dual Capacity-Building Framework for Family-School Partnerships designed by Dr. Karen Mapp (Mapp & Bergman, 2019) could help school leaders “chart a path toward effective family engagement efforts that are linked to student achievement and school improvement” (SEDL, 2013). This framework has been adopted by the Rhode Island Department of Education and by a school district that is geographically and demographically representative of CFSD, Lawrence Public Schools (LPS) in Lawrence, Massachusetts (Mapp & Bergman, 2019; MassInc, 2015). LPS exhibited similar barriers to entry as CFSD, including lack of translational services, unpredictable work opportunities, and inconsistent access to important resources from the district (i.e. English Language Learning classes for adults) (Hendrie, 2017).

While no two contexts are the same, existing programs in CFSD would allow this framework to be integrated without requiring additional hiring or resources. For example, the framework’s Process and Organizational Conditions, goals to enhance the “4 Cs” of educators and families (capabilities, connections,

cognition, and confidence) (Higgins, 2005), and Capacity Outcomes are already present across the Blueprint, Guiding Principles, and CFSD’s Parent Leadership Academy (CFSD, n.d.). In summary, this low-cost framework provides a unified strategy to ensure caregiver-school involvement supporting student and school improvement.

15.5.1.2 Establishing Caregiver-Teacher Design Team (CTDT)

A step in the Dual Capacity-Building Framework and one of the most effective components to the LPS MLL initiative was the Parent Design Team, which gave teachers and caregivers from different cultural and linguistic backgrounds a consistent hub where they could connect and engage around common goals (HPL, 2021). As a highly inclusive and participatory entity, the Caregiver-Teacher Design Team (CTDT) would consist of caregiver and teacher volunteers to maintain transparency, accountability, and communication between schools and homes. This would be particularly useful to address language barriers that would inhibit some caregiver participation by having both multilingual caregivers and school professionals present to translate information. Additionally, the CTDT would have a visible presence with district leadership and represent family voices in critical decision-making, uplifting the representation of a wider scope of critical stakeholder voices. Over time, the CTDT would help establish more trusting relationships between caregivers and schools, a more shared vision and responsibility for MLL student success, and ultimately more effective teaching and learning for MLLs at school and at home.

15.5.1.3 Supporting Adult English Language Development

As mentioned in section 3, research shows that parents’ English language proficiency plays a critical role in fostering children’s development and academic achievement (Karoly & Gonzalez, 2011; Sibley & Dearing, 2014). On a more systemic level, Sommelier et al. (2020) discuss that “higher levels of adult English language literacy are associated with increased levels of

educational attainment, rates of employment, and wages (Zong & Batalova, 2015)” (p.65). As such, we explore the option of having CFSD organize formal parent literacy learning programs. CFSD can invite local organizations such as ProgresoLatino (progresolatino.org) to CTDT meetings to discuss offerings, explore financial subsidies, and examine the importance of language development as a tool to fortify caregivers’ sense of place in their communities and schools.

15.5.1.4 Building Schools as Community Centers

A final alternative follows the call of the UNESCO report to imagine schools as real community centers that meet more holistic needs of caregiver and family well-being. This alternative entails using the positionality and trusting relationships established by the CTDT to connect caregivers to career development, healthcare, and mental health services and organizations already available but less visible in the community.

As with the same model of the English language development program, representatives from public health centers, family law resources, employment centers, adult learning centers, and more could join the CTDT meetings to show what opportunities are available locally for caregiver use. Sommer et al. (2020) discuss the importance of these types of caregiver development to a child’s success: “Ecological and transactional theories of developmental science emphasize the interconnectedness of parent and child learning, suggesting that parents may begin to see connections between their own learning and their children’s education (Bronfenbrenner & Morris, 1998; Sameroff & Rosenblum, 2006)” (p. 65). This initiative is critical to generating more stable home environments for students and establishing greater feelings of self-worth, self-efficacy, and meaningful participation of caregivers in their schools and communities.

15.5.2 Recommendations for Relevant and Sustainable MLL Curricula: Meaningful Learning Through High-quality and Culturally Relevant Opportunities

As mentioned in section 3 of this paper, CFSD struggles in providing quality bilingual materials that build on students' linguistic and cultural assets and in giving teachers and students greater voice in determining which MLL curricula and materials are used. The recommendations in this section are meant to honor the individual school and classroom contexts of CFSD while also maintaining clear and non-negotiable curricular standards through a model of bounded autonomy, as used by Burlington Public Schools in Burlington, Vermont (Mhapadi et al., 2020) and the New Generation Schools in Cambodia (Donaher & Wu, 2020).

15.5.2.1 Establishing Common Language and Best Practice Through Teacher-Administrator Task Force

The numerous approaches schools take to serve MLLs and the varying definitions they use to describe their interventions can cause confusion and lack of unified cohesion in effective best practice (Sugarman, 2018). Similarly, in CFSD, the lack of communication, teacher voice, and shared curricular vision between educator and school administrators works to the detriment in providing MLLs with sustainable and relevant curricula. Thus, a prerequisite recommendation in this area is to establish a teacher-school administrator task force that will develop the following: 1) common definitions and understanding of best ESL curricular practices, 2) a collaborative and cohesive framework of “non-negotiable” ESL practices for teachers that account for school-specific contexts, 3) a clear line of communication and information sharing between ESL interventionists and classroom/content teachers leaders between schools, and 4) a platform for teacher voice in how funds for MLL curricula are allocated and spent. In time, this process-oriented recommendation will create a more trusting and cohesive environment between educators and administrative leaders that more efficiently identifies MLL

students and presents the best curricular path forward to support their learning.

15.5.2.2 Create a Culture of Bounded Autonomy in ESL Curriculum

The next recommendation in this section combines the set of collaborative, “non-negotiable” best practices from the teacher-administrator task force with a standard of giving educators the autonomy to choose more specific classroom materials that best meet their specific students’ needs. This model of “bounded” or “operational” autonomy has been successfully implemented by the New Generation Schools reform in Cambodia and the Burlington School District’s Planning for Success policy (Mhapadi, 2020), where a set of focused priorities “drives a consistent effort throughout the district without stifling motivation of teachers or principals” (p. 126). Additionally, “This culture of bounded autonomy where good relationships are valued contributes to high motivation among teachers, extending therefore to the classroom level” (p. 126) would greatly address the lack of MLL curricular best-practice alignment in CFSD while also enhancing teachers’ sense of ownership and effectiveness in their classrooms.

15.5.2.3 Engage MLLs’ Learning in Integrative and Culturally Relevant Ways

It is clear the need for student-centered, asset-based, creative, and culturally integrative strategies in classrooms will enhance MLLs’ motivations to learn and will act as a complement to the above recommendations. Thus, the final recommendation in this section is for CFSD educators to provide innovative, culturally relevant opportunities in their classrooms to support MLL learning and belonging.

“Culturally relevant” and “culturally sustaining” approaches to curriculum development encourage critical attention to students’ identity development and creating an environment where those identities are not only welcome but seen as living and integral components of the learning community (Ladson-

Billings, 1995) (Paris & Samy Alim, 2017). While the concepts have significant differences, we hope to amplify the importance of these approaches when working with MLLs. Additionally, in “Effective Teacher Collaboration for English Language Learners: Cross-Curricular Insights from K-12 Settings”, Yoon (2021) speaks to the importance of culturally relevant pedagogy: “ELLs stand to benefit strongly from instruction that is both culturally relevant and culturally affirming. Using the wealth of knowledge and diverse experiences that these students bring to the classroom is a good way for teachers to strengthen ELLs’ interest and motivation to learn and participate” (p. 142).

While CFSD teachers are likely already engaging in a number of culturally responsive strategies, this recommendation is meant to emphasize the importance of such practice. In our research, culturally responsive strategies were especially effective when shared between ESL interventionists and classroom teachers (Li & Edwards, 2010; NASEM, 2017; Yoon, 2021). Some practices to support this effort may include: the “translanguaging” methodology, or the use of students’ current language(s) to maximize communication potential when learning new language(s) (CUNY-NYSIEB, 2021), developing oral language proficiency through storytelling with English-proficient speakers (NASEM, 2017), and culture sharing through arts integrated projects that include culturally relevant social and historical figures that represent the backgrounds of MLL students (Yoon, 2021). This could also be a useful tool for teachers to engage with each other as well.

15.5.3 Recommendations for Teacher Capacity

CFSD teachers are highly devoted, adept, and required to be ESL certified. However, there remains a gap in many of their abilities to communicate effectively with their MLL students. This is especially challenging for teachers who, even with the aforementioned parent communication and sustainable curricula, still may feel underprepared and under-resourced when a bilingual translator is not available to come to their classroom. It is also critical to mention that the educators who interface with students each day carry so much inherent

knowledge and intuition about their students. The following alternatives are offered in the spirit of encouraging teachers to share knowledge and expertise from one another so as to elevate teachers' learning experiences and, therein, MLLs' experiences.

15.5.3.1 Start with a Framework for Alignment

Much like the other two areas of recommendations, before jumping into specific strategies for teacher capacity-building, it is first critical to develop a framework through which the current status of CFSD's professional development is visible and able to be assessed for clarity and alignment by teachers and administrators across the district.

One such framework by Villegas-Reimers & Reimers (1996) speaks to a "coherent continuum to support teacher quality" that works to ensure "systemic coherence and alignment" (Reimers, 2020b) within an education system, which we have assessed is a gap in CFSD's current approach. Additionally, the framework offers action steps that ensure longevity and sustainability. While the following steps were designed to address a national-level program, we believe this framework provides an auditing process that is appropriate for CFSD's context:

1. Build a narrative about improving MLL teaching quality as a district and school priority
2. Map and audit the system of programs and policies that sustain teaching quality for MLLs
3. Develop a strategic teaching quality framework and professional standards that create coherence in the system which supports teacher quality
4. Empower ESL and bilingual teachers as professionals. Develop career pathways
5. Ensure a robust pipeline of qualified entrants into ESL teaching or bilingual interventionists

6. Support developmental professional trajectories for ESL teachers that produce highly effective teaching for MLLs

(Adapted from Reimers, 2020b, p. 20)

While the other areas discussed in this recommendations section include a larger number of people, this initial phase of professional development evaluation could involve a smaller group of educators and leaders who are representative of the student-family population and have deep or growing knowledge of CFSD's professional development.

15.5.3.2 Getting Collaborative

After the auditing process, specific qualities of CFSD's teacher capacity-building efforts will likely support the type of professional development educators need to best support MLLs. In the breadth of our research, collaboration is a central quality that stands out among others as supportive of building teacher capacity for MLL students while being efficient, cost-effective, and transparent.

In "Effective Teacher Collaboration for English Language Learners: Cross-Curricular Insights from K-12 Settings" (2021), Yoon discusses the benefits of teacher collaboration in professional development, particularly in service to MLLs (ELLs - English Language Learner - is used in this text and is interchangeable with MLL): "ESL specialists can provide content teachers with the methods and strategies they need to help ELLs acquire content successfully. In this contest, colleagues pool their knowledge, skills, and resourcefulness to find ways to use cultural elements to enrich the learning experience" (p. 144). Hence, CFSD ESL teachers should occupy a place of leadership and elevated practice, potentially modeling skills acquisition for other educators.

Additionally, focusing on collaborative approaches to building teacher capacity and professional development are crucial to fortifying educators' professional skills and interpersonal competencies through shared practice. Yoon further supports this collaborative quality by speaking to the coming together of

skills and knowledge of content area teachers (who is more focused on a specific subject) versus ESL/bilingual educators (who is more focused on linguistic pedagogy and theory): “Given that ELLs acquire content knowledge more successfully through the use of language in an integrated manner...the exchange of both groups of teachers’ knowledge is important” (p. 8).

It is noteworthy to mention a through-line from the other two categories of recommendations that is also applicable here: all these strategies emphasize a culture of support (Villegas-Reimers, 2003). Lieberman (1994) outlines five factors that are necessary for this to exist: developing norms of collegiality, openness, and trust; creating opportunities and time for disciplined inquiry; providing opportunities for teachers’ learning content in context; re-thinking the functions of leadership, and redefining leadership in schools to include teachers; creating and supporting networks, collaborations, and coalitions (p. 119).

15.6. Final Recommendation

15.6.1 Theory of Action

We assessed each of the alternatives outlined above against criteria which we judged as most pertinent to the unique circumstances of MLL reforms in CFSD. While all of the recommendations are viable and promising alternatives, we conclude that the following recommendations are most actionable by the CFSD community at this time: 1) the Caregiver-Teacher Development Team to boost caregiver involvement, 2) allowing teachers and administrators to co-create a curricular culture of bounded autonomy to address sustainable MLL curricula, and 3) a professional development audit and action plan for teachers to increase teacher capacity.

Specifically, these three alternatives were considered to be the most feasible from an implementation standpoint over the next 1-2 years. We believe that all three root causes are mutually reinforcing and should be tackled at the same time for the results to be most amplified. As such, our Theory of Action is the

following: If CFSD establishes a collaborative and community-wide effort of 1) implementing strategies towards a Dual Capacity-Building Framework with MLL caregivers and teachers, 2) ensuring high quality and sustainable MLL curricula through a bounded autonomy model with teachers and administrators, and 3) developing a co-operative continuum of professional development for CFSD teachers, then MLLs will experience a more holistic system of opportunity to succeed.

15.6.2 Implementation Sequence & Trade-offs

We acknowledge that it may be difficult to launch, at once, all the recommendations addressing the three root cause areas. Therefore, we must consider the tradeoffs to implementing any aspect of our approach in the absence of the others. If CTD/T is the only measure undertaken, the district may have better caregiver involvement, but the remaining non-alignment of human and financial resources in deciding upon and executing MLL programming will prevent the district from fully leveraging the presence of caregivers. If teachers are given agency in co-creating programming and allocation of funds, yet nothing else from the other root cause areas are addressed, then CFSD will see an improvement in the relevance and sustainability of MLL curricula, but lack of caregiver involvement and teacher capacity will continue to impede on students' performance. Finally, if teachers engage in a capacity-building audit and pursue collaborative professional development strategies in the absence of other components of the recommendation, then teachers will be better equipped to interface meaningfully with MLL students, but they will miss out on the bolstering support of a curriculum of bounded autonomy and caregiver network.

15.7 Conclusion

CFSD MLLs face many historic and ongoing systemic challenges that contribute to their achievement gap. It is clear that their administrators - at both the district and state levels - are actively involved in the development of reforms aimed at improving MLL success in school and beyond. Indeed, the Blueprint charts out a visionary pathway that is greatly aligned with the key tenets of the UNESCO report to holistically

address education opportunities for MLLs. Meanwhile, reform at the district level is founded on the conviction that teachers and curricula stand to exert the biggest boost to educational outcomes in the CFSD context. In this paper, we proposed that, in order to build towards equitable and quality education for MLLs in a way that celebrates the funds of knowledge present within their own communities, CFSD should consider not only addressing teacher capacity and curriculum but, in line with the report, also parents' involvement in students' education. It is by taking this three-pronged approach, where each component complements and contributes to the success of the other, that we believe CFSD's reform can become not only impactful in the short term but also sustainable for years to come.

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Appendix

Interviewee #1: Dr. Sergio Paez, CFSD Director of Equity, repeated communication about MLL education in CFSD between October 2021 and December 2021

Interviewee #2: Anonymous Principal, to discuss MLL education in their school, CFSD Guiding Principles, and the RI Blueprint on November 15, 2021

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Chapter Sixteen. Uruguay

Uruguay: Rethinking teacher training and global education through *Plan Ceibal*

Guillermo Delso Segovia, Erica HyoWon Jang, Chloe Manuel and Elisabeth Staal

Abstract

In 2007, Uruguay implemented a One Laptop per Child program through *Plan Ceibal* (“Conectividad Educativa de Informática Básica para el Aprendizaje en Línea”); an initiative aimed at advancing technological proficiency by promoting digital inclusion and narrowing the digital divide. Since its inception, *Plan Ceibal* has evolved to encompass a variety of services, including online learning development platforms, English language instruction, and teacher training programs. As of 2021, *Plan Ceibal* is considered one of the most successful initiatives in educational technology innovation in Latin America. This report analyzes the ongoing work of *Plan Ceibal* in Uruguay, and examines the level of alignment between *Plan Ceibal* and the UNESCO report, *Reimagining Our Futures Together*. After extensive research and analysis, two recommendations are presented:

1. Expand teacher development through mentorship
2. Design a global competence curriculum within existing technical infrastructure.

16.1. Introduction

The organization *Plan Ceibal* was launched in 2007 to “support Uruguayan educational policies with technology,” with particular focus on inclusion and equal opportunities (Plan Ceibal, n.d.). Over a decade later, *Plan Ceibal* remains a national

leader in Uruguayan education and has been successful in guaranteeing widespread technological access. *Plan Ceibal* can further improve student learning outcomes by expanding teacher training opportunities to build capacity within the profession, and developing intercultural activities and opportunities for global exposure.

This report examines the *Plan Ceibal* reform in the context of the *Reimagining Our Futures Together* report by the International Commission on the Futures of Education, sponsored by UNESCO. Eugene Bardach and Eric Patashnik, authors of *The Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving*, provide the guiding principles of this report's analysis. We first establish the contextual background of *Plan Ceibal*. Secondly, we outline *Plan Ceibal*'s underlying theory of action, and evaluate its current impact. Then, using available literature and primary interview data, we conduct a robust policy matrix analysis of issues within Uruguay's public education system, in order to identify potential avenues for *Plan Ceibal*'s intervention and improvement. Finally, we present two policy recommendations to bring *Plan Ceibal* into stronger alignment with UNESCO's vision for the future of education.

16.2. Context

Uruguay is a small country with a total population of 3.5 million, approximately 20% being school-aged children ages 4-17. The Uruguayan education system includes fourteen years of compulsory education, and boasts the highest literacy rate in Latin America at 98% (Edelman & Fernández, 2010, p.24). By international comparison, Uruguay consistently scores below average in the Program for International Student Assessment (PISA), distributed by the Organization for Economic Cooperation and Development (OECD) (PISA, 2018).

The Uruguayan education system is unique in that there are three primary institutional actors: the Ministry of Education and Culture (MEC), the National Agency of Public Education (ANEP), and the University of the Republic (UDLEAR). Unlike OECD-member countries, it is the autonomous ANEP, not the MEC, which holds the most power over public education,

responsible for the establishment of Uruguay's education policies, administration, and teacher training (Hinojosa et al., 2011, p.126). ANEP consists of the Central Governing Council (CODICEN) and four education councils that cover different areas of the education system.³⁵ However, the roles of responsibility are not clear. For example, while CODICEN coordinates the councils and is hierarchically superior, the councils act almost entirely autonomously from one another and CODICEN without coordination. This lack of institutional clarity presents a challenge for Uruguay when seeking to “develop and implement school education policy,” as there is no clear pathway for doing so (Santiago et al., 2016, p.8).

A desire to override these disconnects may have contributed to President Tabaré Vázquez's decision to establish the *Plan Ceibal* reform through executive presidential decree 144/007. Born out of the political will to merge technology and education, *Plan Ceibal* responded to the “need to advance toward an information and knowledge society” (Mateo Diaz & Lee, 2020, p.78). The Equity program for Access to Digital Information (PEAID) was launched in December 2006, based on the MIT non-profit organization One Laptop Per Child (OLPC), which provided digital devices to address critical education gaps. *Plan Ceibal* was subsequently created in 2007 to provide a laptop to every student and teacher in public primary education (Plan Ceibal & ANEP, 2011, p.71). *Plan Ceibal's* theory of action is to promote “**the integration of technology into education in order to improve learning and promote processes of innovation, inclusion and personal growth**” (*Plan Ceibal*, 2020, p.7). To assess the effectiveness of its theory of action, it is helpful to find connections, or disconnections, between *Plan Ceibal's* activities. The stated theory of action will be used as a grounding point to measure and monitor the growth and progress forthwith.

While creating *Plan Ceibal* via executive order was arguably wise at the time, enabling a fairly swift implementation of OLPC,

³⁵ The four councils are: Pre-primary and Primary Education Council, Secondary Education Council, Technical and Professional Education Council, and Teacher Training Council.

prioritizing speed meant sacrificing “closer coordination with educators and education authorities” which may have “helped to better integrate education technology into teaching and learning.” While this initial lack of collaboration with educators is misaligned with its theory of action, *Plan Ceibal* has since expanded engagement with teachers and other stakeholders (Fowler & Vegas, 2021, p.3).

By 2011, *Plan Ceibal* delivered an XO-brand computer with free digital access to *Biblioteca Digital Ceibal* to every primary-school student and teacher (Plan Ceibal, n.d.) Notably, there was significant growth in access to technology in Uruguay between 2007 and 2017. Over ten years, PC access in all age groups and income quintiles increased. A pronounced increase occurred within the youngest group measured, ages six to thirteen, which saw over 90% improvement across all income quintiles (Plan Ceibal, 2020). To date, over 2.5 million devices have been delivered, thus securing access for students and teachers in secondary education (Plan Ceibal, 2021). By providing 3,023 education centers with WiFi connectivity and equipping 1,500 with video conferencing platforms, *Plan Ceibal* has also ensured that “every educational center in the country is now connected to the Internet” (Mateo Diaz & Lee, 2020). Guaranteeing universal access to computers and digital textbooks highlight *Plan Ceibal’s* commitment to inclusion in its theory of action. This evidence also underscores *Plan Ceibal’s* direct effect on students in narrowing the digital divide and “promoting equal access to information and communication tools for all our people” (President Vázquez, 2009).

While there is adequate data regarding connectivity and usage of *Plan Ceibal* devices and platforms, there is not an evaluation system in place to thoroughly evaluate student outcomes as a result of *Plan Ceibal’s* intervention. Relatedly, the aforementioned PISA scores have remained below-average since 2007, signaling no major differences in this area before and after the implementation of *Plan Ceibal* (OECD, 2007). While *Plan Ceibal’s* goal is not directed towards improving PISA scores,

these results do provide insight on how *Plan Ceibal* does or does not affect student outcomes in the areas PISA covers.

Plan Ceibal's intended impact to narrow the social divide between urban/rural students and those from different socioeconomic backgrounds through the universal provision of technological education is reflected in the aforementioned improved access (Trucano, 2009). This complements one of the MEC primary objectives to “guarantee the use of ICT as an instrument for the democratization of knowledge” signaling early alignment between *Plan Ceibal* and prominent local government entities (Ministerio de Educación y Cultura, 2021). The tight intertwinement between *Plan Ceibal* and Uruguay’s most influential education decision-makers is not coincidental, given its status as a privately run but publicly funded organization.³⁶ Additionally, representatives from the MEC and ANEP form half of the *Plan Ceibal* board of directors. This results in undeniable political influence, while also allowing some degree of autonomy.

Plan Ceibal also offers a robust learning management system, CREA, which proved particularly influential as the COVID-19 pandemic began. According to *Plan Ceibal's* most recent report, 376,836 students and teachers entered CREA during October 2021. Of those users, 347,585 were students (92%) and 29,251 were teachers (8%). The CREA platform hosts a vast collection of tools, over 1,500 educational resources, and a section dedicated to providing guidance on “how to support pedagogical continuity from home, targeting parents and students’ families” (Florencia Ripani, 2020, p.3). There is clear alignment in encouraging innovation, as named in its theory of action, by providing more tools and resources, as well as a commitment to personal growth by including resources targeted at supporting student learning in partnership with their families.

Plan Ceibal has since expanded its activities far beyond OLPC, its remit now encompassing branches for teacher training, English language instruction, and coding and robotics initiatives. The use of technology to achieve social and educational goals promotes a national digital culture, equipping students, teachers,

³⁶ Carinna Bálsamo, personal communication, 2021.

and families with “new digital skills [...] beyond basic reading, writing, and arithmetic” (Molinari de Rennie & Canale, 2019, p.7). These goals – of equity, knowledge, and inclusion – are at the core of the *Plan Ceibal* reform, and in direct alignment with the United Nations Educational, Scientific and Cultural Organization’s (UNESCO) goal “to close the digital divide in education, and to consider digital literacy, for students as well as for teachers, one of the essential literacies of the 21st century” (The International Commission on the Futures of Education, 2021, p.44). This alignment signifies unity in a global context.

Leandro Folgar, President of *Plan Ceibal*, highlighted two key issues of the current education system during an interview; one a dissatisfied perception of the teaching profession, and the other the lack of technology integration with traditional pedagogies.³⁷ The education system has made great strides towards a more equitable and accessible education for the 21st century through the described technological advances, of which the *Plan Ceibal* reform has been a driving force. In spite of this relative success, it is still necessary to consider areas for growth to identify opportunities for further advancement.

It is relevant and important to note that the Uruguayan education system is currently undergoing a large-scale reform to be launched in 2023. It aims to increase completion of compulsory education and refocus the current content-based curriculum to be more competency-based. *Plan Ceibal*’s role in this current reform presents a unique opportunity for widespread change. *Plan Ceibal*’s current priorities inform the organization’s goals for the current reform, which include two major aims: ensuring access to technology is explicitly included in education policy, and integrating computational thinking into the national curriculum.³⁸ This shift in focus on computational thinking is a natural progression from the theory of action’s specific focus on technology. With widespread use of technology, there is a cultural shift that creates “new cognitive demands, and demands in information literacy and computational thinking, among entrants in the labor market”

³⁷ Leandro Folgar, personal communication, 2021.

³⁸ Javier Mazza, personal communication, 2021.

(Reimers, 2020, p.22). A political shift is also occurring as greater technological literacy may “translate into organized efforts to influence the curriculum,” indicating *Plan Ceibal*’s goals stem from organic growth rather than a deviation from path and purpose (Reimers, 2020, p. 23). With this in mind, we give focus to assessing *Plan Ceibal*’s opportunities for change and alignment with UNESCO’s recent report *Reimagining Our Futures Together: A New Social Contract for Education* (UNESCO 2021). Looking towards the future of *Plan Ceibal*, we find that teacher training and global competency frameworks are key areas to deepen impact.

16.3. UNESCO’s *Reimagining Our Futures Together* Report and *Plan Ceibal*’s Alignment

Reimagining Our Futures Together by the UNESCO International Commission on the Futures of Education (hereby referred to as the “UNESCO report”) invites “governments and citizens around the world to forge a new social contract for education that will help build peaceful, just and sustainable futures for all” (UNESCO, 2021, p.2). The UNESCO report calls to leverage digital technologies, tools, and platforms to promote human rights, enhance human capabilities, and facilitate collective action for peace, justice, and sustainability (The International Commission on the Futures of Education, 2021, p.34). This guiding principle is squarely aligned with *Plan Ceibal*’s work.

An example of this alignment is *Plan Ceibal*’s success in closing the digital divide, which is the first priority regarding technology in the UNESCO report. Among other initiatives, *Plan Ceibal* has improved numeracy and developed socio-emotional skills in Uruguay, supported schools technologically, and ensured students’ wellbeing and digital safety. As its undertakings are almost entirely reflected in the UNESCO report, *Plan Ceibal*, within its scope of influence, is contributing to UNESCO’s vision.

Although, overall, there exists great alignment between the work being done by *Plan Ceibal* and the five key ideas set forth in the

UNESCO report³⁹, our analysis identifies areas which can be further developed to advance education in Uruguay while ensuring alignment with the new social contract for education.

Analysis

Eugene Bardach and Eric Patashnik’s principles of assembling evidence, selecting criteria, projecting outcomes, and confronting trade-offs guide the forthcoming analysis (Bardach & Patashnik, 2020). In order to identify options for improvement for *Plan Ceibal*, it is necessary to conduct a review of available literature and relevant research on issues within the wider Uruguayan public education system which *Plan Ceibal* serves as a government-sponsored reform. Here, we analyze several areas for potential growth, followed by a subsequent process of robust criteria selection and policy ranking, to identify the most effective and feasible policy proposals for *Plan Ceibal*.

Literature review

Teacher preparedness for the integration of digital devices:

Uruguay’s PISA 2018 results revealed that teachers are falling short on several measures of digital competency, despite *Plan Ceibal*’s extensive market penetration. When school principals were asked to what extent they agreed with the statement, “Teachers have the necessary technical and pedagogical skills to integrate digital devices in instruction”, only 49.5% agreed or strongly agreed (OECD, 2019). This leaves Uruguay with one of the smallest shares of teachers perceived as equipped to teach

³⁹ 1) Pedagogies characterized by solidarity and cooperation; 2) Curricula that emphasize ecological, intercultural, and interdisciplinary learning; 3) The transformative work of teachers supported as a collaborative endeavor; 4) The safeguarding and transformation of schools as key institutions for ensuring individual and collective wellbeing; 5) Societies where all enjoy rich learning opportunities across life.

using digital-pedagogies, ranking 73rd out of 78 PISA-participating countries for teacher readiness for digital devices and instruction. Uruguay also scored below the OECD average on the following prompts: “Teachers have sufficient time to prepare lessons integrating digital devices,” “Effective professional resources for teachers to learn how to use digital devices are available,” and “Teachers are provided with incentives to integrate digital devices in their teaching” (OECD, 2020).

This is somewhat unsurprising, given that technical competencies such as coding and robotics are not part of Uruguay’s national curriculum, and teacher engagement in *Plan Ceibal*’s training is entirely optional. An interview with Mauro Carballo, Manager of Education Technology at *Plan Ceibal*, revealed that the majority of instruction regarding technology is delivered through video-conferencing calls with coding teachers at universities, in partnership with the Argentinian organization *Fundación Sadosky*.⁴⁰ Tech-focused instruction is being outsourced, making clear that the majority of Uruguayan teachers in classrooms are not currently equipped to deliver *Plan Ceibal*’s programs.

Grade repetition and completion rates:

In general, Latin American schools have particularly high repetition rates in lower secondary education, but Uruguay has one of the highest repetition rates out of all PISA-participating countries, ranking 5th out of 75 countries, second in Latin America after Colombia (Bassi et al., 2015, p.115). 33.4% of students have repeated a grade during primary, lower secondary, or upper secondary school (OECD, 2019). This problem worsens when we look at the large share of disadvantaged students repeating (66.8%), with the second largest difference in grade repetition between advantaged and disadvantaged students out of all PISA-participating countries (Vinas-Forcade et al., 2021). Repetition is also somewhat more frequent for boys than for girls (Choi et al., 2018, p.23). Moreover, completion

⁴⁰ Mauro Carballo, personal communication, 2021.

rates of lower and upper secondary education are unsatisfactory, lower than other countries in the region, and have shown little improvement over the past twenty years. Consequently, Uruguayan schools have a high share of overage students (INEED, 2015, pp.41-45). Given its universal access amongst primary-age students, *Plan Ceibal* is uniquely positioned to offer “catch-up” programs delivered through CREA.

International collaboration and global exposure:

Data in existing literature suggest that Uruguayan students do not experience sufficient international collaboration in education. In PISA 2018, only a small minority of students reported having had contact with people from other countries at school, ranking Uruguay 57th out of 64 countries. Figure 1 depicts how against other measures of global competence, Uruguayan students consistently rank below the OECD average in all but one indicator.

Figure 1: Students’ global competence: Uruguay (GPS Education, 2018)

Index indicator	OECD average	Uruguay
Student interest in learning about other cultures	0.00	0.16
Student awareness of global issues	0.01	-0.20
Student self-efficacy regarding global issues	0.00	-0.03
Student respect for people from other cultures	0.00	-0.01
Student awareness of intercultural communication	0.00	-0.06
Student agency regarding global issues	0.00	-0.07

It is particularly important to note that on average, students in Uruguayan schools are more interested in learning about other cultures than OECD countries, yet their performance on global competencies lags behind. Several OECD studies following PISA 2018 emphasized that students proficient in intercultural communication “understand cultural norms, interactive styles, and degrees of formality in intercultural contexts, and can adapt their behavior and communication to suit every situation” (OECD, 2020, p.118). Moreover, Leandro Folgar, President of *Plan Ceibal*, highlights that Uruguay is a very “homogenous society.”⁴¹ When asked about the limited opportunities *Plan Ceibal* offers for exchange, he adds, “in terms of building relationships with people from other countries, it is a huge challenge.”

These findings highlight a need for increased cross-cultural exchange to be built into the student experience. There is some evidence of *Plan Ceibal*'s programs promoting international exposure and global mindsets. For example, *Ceibal en Inglés*, which provides English language instruction through *Plan Ceibal*'s video conferencing network and remote teachers, is intended to “promote the learning of English as a foreign language at all levels of public education [...] to promote interculturality [...] using technology” (Plan Ceibal, 2021). Similarly, *Plan Ceibal*'s involvement in the Bebras Computing Challenge, a computational thinking initiative, and the FIRST LEGO League Challenge, a global robotics competition, also encourage international collaboration and cross-cultural exchange. Despite participation in international initiatives, Folgar admits that intercultural learning plays an almost “non-existent” role in *Plan Ceibal*'s internal curricula at present.⁴²

Student aspirations

Several research reports describe a disconnect between student ambition and their expressed goals, signaling a gap in the development of aspirations in educational experiences. One

⁴¹ Leandro Folgar, personal communication, 2021.

⁴² Leandro Folgar, personal communication, 2021.

report finds that many students, particularly disadvantaged students, “hold lower ambitions than would be expected given their academic achievement” (OECD, 2019, p.6). PISA 2018 revealed that one in four high-achieving disadvantaged students, and one in ten high-achieving advantaged students did not expect to complete tertiary education. More specifically, the number of students expecting to be ICT professionals by the age of thirty is well below the OECD average (OECD, 2020). This is particularly relevant in Uruguay given the country’s reputation as a technology-focused economy, dubbed “the Silicon Valley of South America” (Serron, 2018). Uruguay consistently ranks as a leader in ICT indicators among Latin America and the Caribbean countries in the Digital Opportunity Index, yet despite this, there is minimal expressed student aspiration to work in the sector (United Nations International Telecommunication Union, 2017). Indeed, an OECD commentator notes that, “empowering youth who are eager to work while ensuring their talents match labor market demands and structures is a smart way to create inclusive growth” (Bárcena, 2016).

Potential opportunities for action: policy matrix

In light of these findings, Figure 2 presents a policy matrix which analyzes several potential avenues of opportunity for *Plan Ceibal*. The four key criteria against which policy recommendations were ranked were chosen to give an overview of the feasibility and impact of each suggestion. “Political feasibility” frames each recommendation in the wider context of *Plan Ceibal*’s position as a government-funded entity amongst other education authorities. “Improve student outcomes” examines each recommendation’s capacity to positively impact measures of student outcomes, such as test scores, grade repetition, and completion rates. “Implementation feasibility by *Plan Ceibal*” considers the likelihood of *Plan Ceibal*’s support and capacity to execute each recommendation. “Effectively addresses issue” asks to what extent each recommendation directly and effectively tackles a particular issue identified in the literature review. Additionally, each recommendation is considered in relation to the ideas highlighted in the UNESCO report. A five-

point scale was chosen: ‘Very unlikely,’ ‘Unlikely,’ ‘Neither likely nor unlikely,’ ‘Likely,’ and ‘Very likely.’ Comments alongside these rankings further explain the reasoning behind the ranking scale in each respective column.

Figure 2: Policy matrix

Recommendations	Political feasibility	Improve student outcomes	Implementation feasibility by <i>Plan Ceibal</i>	Effectively addresses issue	Alignment with UNESCO report
Teacher preparedness: introduction of a <i>Plan Ceibal</i> mentor-based professional development training program for teachers	Very likely: entirely within <i>Plan Ceibal's</i> remit	Likely: effective but not all-encompassing	Very likely: entirely within <i>Plan Ceibal's</i> capabilities	Very likely: directly targets highlighted problem	Emphasizes teacher collaboration and professional development
Teacher preparedness: introduction of mandatory and fully compensated <i>Plan Ceibal</i> teacher training	Unlikely: requires government legislation	Very likely: evidence-based, direct impact on outcomes	Very unlikely: not within <i>Plan Ceibal's</i> capabilities	Very likely: directly tackles highlighted problem	Promotes better working conditions and incentives for teachers
Grade repetition: development of “catch-up” programs to be administered via CREA platform	Neither likely nor unlikely: requires coordination with government	Very likely: evidence-based, direct impact on outcomes	Likely: <i>Plan Ceibal</i> would benefit from support	Likely: contributes to tackling a highlighted problem	Offers additional learning opportunities for those falling behind
Low aspirations: creation of online career exploration platform	Very likely: entirely within <i>Plan Ceibal's</i> remit	Neither likely nor unlikely: less direct measurable effect on outcomes	Unlikely: requires substantial development and investment	Neither likely nor unlikely: indirectly contributes to tackling highlighted problem	Looks beyond public-school remit towards future empowerment
Global exposure: expansion of <i>Ceibal en Inglés</i> model to incorporate other languages	Neither likely nor unlikely: requires coordination with government	Likely: effective but not all-encompassing	Neither likely nor unlikely: depends on external actors	Likely: contributes to tackling highlighted problem	Intercultural learning through foreign language instruction
Global exposure: development of intercultural activities and courses on CREA platform	Very likely: entirely within <i>Plan Ceibal's</i> remit	Likely: effective but not all-encompassing	Very likely: entirely within <i>Plan Ceibal's</i> capabilities	Very likely: directly tackles highlighted problem	Embraces cross-cultural exchange and diversity

Selected recommendations

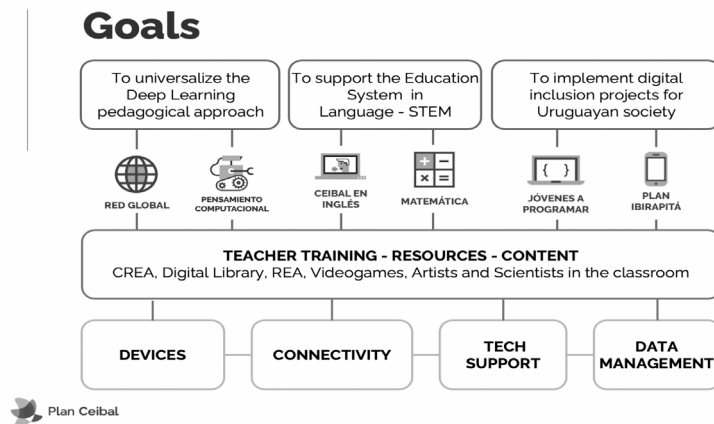
Figure 2 demonstrates that many possible areas for action are fundamentally intertwined, and the pursuit of any proposal will indirectly impact the others. It is clear, however, that two recommendations are better positioned for immediate planning and implementation than others. As such, the following recommendations were chosen and further analyzed: introduction of *Plan Ceibal* mentor-based professional

development training program for teachers and development of intercultural activities and courses on the CREA platform.

16.4. Recommendation 1: Expand teacher development through mentorship

Increasing teacher preparedness is essential in order to provide effective education experiences for students. The lack of capacity within the teaching profession can be largely attributed to a deficit of compensated training opportunities, poor public perception of the profession, and inconsistent training and support. As demonstrated in Figure 3, *Plan Ceibal* recognizes the critical role of teachers in its ambitions for further integration of digital-pedagogies, and has infrastructure available which makes increasing teacher capacity both feasible and impactful. In fact, *Plan Ceibal* has trained over 5,537 teachers through its *Formación Educativa* branch in digital instruction to date (Plan Ceibal, 2021). Building teacher competencies in technology and digital pedagogies is a key area in which *Plan Ceibal* can continue to have significant influence.

Figure 3: *Plan Ceibal's* goals and methodology (Folgar & Montaldo, 2020)



Context

In an effort to mitigate the issue of teacher preparedness, as established in the analysis, the National System of Teacher

Education was created in 2008. However, teacher completion rates remain low. This may, in part, be due to the lack of an accompanying evaluation system to ensure quality and assess the effectiveness of the training programs. The National Institute for Educational Evaluation (INEEd) found in their 2018 evaluation that the majority of teachers are seeking relevant training, including “[...] almost 40% of primary and middle school teachers [who] stated that they consider it essential to receive training in information and communication technologies,” which is particularly relevant to *Plan Ceibal* (Nacional de Evaluación Educativa, 2021).

This suggests that the problem is not a question of teacher motivation, rather the training itself. The OECD considers problems of teacher recruitment and deployment to be “highly inefficient, while teacher compensation is unstructured,” noting that an absence of clear strategy results in teachers feeling underprepared, undersupported, and underpaid (Santiago et al., 2016, p.5). Without a national vision for the role of teachers, and no mandatory requirement for professional development, teachers engage with training and professional development programs on a voluntary basis.

The Institute for Advanced and Higher Studies (IPES) currently offers ANEP-developed training courses. IPES is the largest provider offering training focused on pedagogical skills, research, and specialized offerings. Low participation in these programs is largely believed to be due to a lack of time and compensation, and the absence of a professional development culture within the teaching profession (Santiago et al., 2016, p.233). Mentor programs are currently available, yet they are not regulated, resulting in many teachers being inadequately supported as they begin their careers (Santiago et al., 2016, p.17). *Plan Ceibal* also used the popular method of mentorship as a training technique in the early days of the reform. In 2009, the role of a *CEIBAL Teacher* was created, and these teachers received extensive training in order to provide support to other teachers in their school on how to best use laptops and digital devices to support learning. This initiative proved successful,

but evidence suggests that this role did not continue beyond learning how to use a laptop (ANEP, 2011, p.37).

The role of teachers in Plan Ceibal

Plan Ceibal has seen a significant increase in teachers using their resources between 2018-2020. This promising increase, which was dependent on teachers voluntarily engaging with resources, signifies a solid foundation of teacher motivation. However, only the learning management systems saw over 50% teacher usage. *Plan Ceibal* needs the majority of teachers consistently using available tools in order to improve equity across schools and classrooms (IEA, 2020). This ICT-specific example gives a look into a broader training issue of teacher skill sets and capacity remaining a barrier between *Plan Ceibal* programs and maximum impact.

Plan Ceibal has sought to address needs identified in INEED data through its *Formación Educativa* branch, which is entirely dedicated to teacher training, currently offering “2,000 open educational resources, access to a digital library with more than 2,000 contents including textbooks, storybooks, index cards” (*Formación Docente*, n.d.). *Plan Ceibal* already has the infrastructure to further support teacher training and capacity building. However, *Plan Ceibal* is currently missing a clear vision for what the role of the teacher should be in using ICT in practice. This lack of guidance misses an opportunity for teachers to collectively move towards established goals (Fullan et al., 2013, p.21)

The *Ceibal en Inglés* program provides a relevant example to further examine how teacher capacity impacts *Plan Ceibal's* work. *Ceibal en Inglés* was created to support English language instruction by connecting classes with a remote teacher located in countries across the world. While this is an innovative way to address an immediate need, Uruguayan teachers should ultimately possess these skills too, if language instruction is a priority for Uruguayan student learning (Trucano, 2016). Here,

Plan Ceibal identified a gap in teacher abilities and student needs, and targeted training efforts aimed to narrow that gap.

Plan Ceibal does not have the power to make its own training programs mandatory to all teachers; this lies in the remit of ANEP, yet *Plan Ceibal* remains an influential government partner. As expressed in interviews, senior members of *Plan Ceibal* hope to see further integration of computational thinking and digital pedagogies, which would require greater teacher participation in development programs. Moreover, this is an opportune moment given *Plan Ceibal*'s involvement in the current national education reform.

Evidence of successful training

Research indicates that achieving greater teacher effectiveness through teacher training requires significant monetary investment and a long-term commitment. While there are many different forms of teacher training, for brevity we focus only on those relevant to *Plan Ceibal*'s pursuit of building digital competencies for teachers.

A “self-directed” professional development approach is recommended, in which teachers identify gaps in their personal knowledge and skills and set their own goals. Those administering the training then facilitate to ensure stated goals are met (Villegas-Reimers, 2003, p.97). This ensures that teachers' needs are being met and their input is considered. The 2018 INEEed evaluation data in which teachers have self-identified areas for self-improvement can be used as a foundation of planning. Long-term professional development opportunities should also be considered. While *Plan Ceibal* offers robust online training courses, workshops, or single-engagement events, these are proven to not be most effective when offered as “one-shot experiences.” However, when sustained overtime and teachers are supported by an outside entity, an in-service model can be effective (Villegas-Reimers, 2003, p.93). There is an opportunity here for *Plan Ceibal* to create more long-term training options, but the challenges of

compensation and schedules will present obstacles to teachers committing more time.

Teacher compensation is a proven method of ensuring consistency in teacher training and quality. For example, computational thinking teacher training that was implemented in England in 2014, saw the government dedicating modest funds to the endeavor. Low teacher participation followed. In 2018, funding for compensation was significantly increased and in tandem participation rates dramatically increased (Staufenberg, 2018). A major takeaway from this case is that “teacher training should be an immediate priority that requires ambitious funding and long-term planning” (Fowler & Vegas, 2021, p.4).

Examples of providing teacher training compensation in Uruguay is found in initiatives such as Community Teachers, Teacher+Teacher, the Tutorials Project, and the Educational Commitment program which exemplify the subsequent positive student outcomes (Santiago et al., 2016, p.9). They also include mentorship components and observations, typically proven to be successful training methods (Villegas-Reimers, 2003, p.101).

Recommendation and implementation

Based on the aforementioned analysis and evidence, and with *Plan Ceibal's* current goals in mind, our theory of action for Recommendation 1 is as follows: if teachers have the capacity, compensation, and consistent support for training to reach specified goals, then teaching quality and student outcomes will improve. In turn, this will improve public perception of the profession. *Plan Ceibal* should use its influence to coordinate with government organizations, such as ANEP, to make the use of *Plan Ceibal's* programs a sector norm, and create a more universal culture of ongoing teacher training. Once an expectation is established that teachers will use digital-pedagogies by interacting with *Plan Ceibal's* programs, systems must be in place for teachers to gain the relevant skills.

Therefore, our recommendation is for *Plan Ceibal* to further its efforts in developing teacher capacity by reinstating *CEIBAL*.

Teachers as a mentorship program. In this modern iteration, *CEIBAL Teachers* will be hired and compensated by *Plan Ceibal*, and undergo extensive training in the technical and pedagogical skills required to integrate digital devices in instruction, with an additional focus on how to teach computational thinking. This will then enable them to mentor teachers across different schools, improving inter-school partnerships. Training would consist of incorporating a critical consumption and consideration of technology, as *Plan Ceibal* hopes to shift student and teacher mindsets from considering technology as purely instrumental devices to consider the larger questions and challenges posed by an increasingly tech-reliant, data-driven world.⁴³ To bolster mentorship, the OECD recommends a “competency framework for the teaching profession,” as it is an essential “mechanism for clarifying expectations of what systems of teacher education and professional development should aim to achieve” (Santiago et al., 2016, pp.5-14). To accompany this recommendation, we advise the following

⁴³ Javier Mazza, personal communication, 2021.

multifaceted strategy, which acknowledges that multiple actions are needed in order to see sustained impact:

Internally, it is recommended that *Plan Ceibal's Formación Educativa* should:

1. Reinstate *CEIBAL Teachers*, with a new focus on computational thinking and digital-pedagogies
2. Publish a framework of competencies expected of teachers engaging with *Plan Ceibal* programs, which can be used as a basis for the mentorship program
3. Develop an evaluation system for teacher training offerings to determine which methods are the most effective and popular

Regarding the ongoing national education policy reform, it is recommended that *Plan Ceibal* should:

1. Advocate for *Plan Ceibal* training to be mandatory, whether it be specific training opportunities, or giving teachers the option to select training opportunities and fulfill a certain number of hours
2. Advocate for fair teacher training compensation
3. Advocate for building training time into teacher schedules

While the *Plan Ceibal* internal recommendation can be implemented separately, it is recommended to work in tandem with advocacy for systemic change. Successful implementation depends on a culture of support for training, accounting for varied teacher contexts, allotting time for teachers to engage in training, and sufficient funding. *Plan Ceibal* will need

government partnership to achieve its goals on a large scale (Villegas-Reimers, 2003, pp.119-128).

16.5. Recommendation 2: Design a global competence curriculum within existing technical infrastructure

As we consider the extent to which globalization is influencing societies worldwide, education must prepare students with tools and skills necessary to become global citizens. Typically, these competencies are achieved through international collaboration, cross-cultural exchanges, and exposure to diverse contexts. Given its significant reach across Uruguay and unique digital infrastructure, *Plan Ceibal* is well-positioned to facilitate this move towards a population of globally-minded young people.

Context

The notion of “global competence” is well- established, with several distinct measures specified by PISA.⁴⁴ The Conceptual Learning Framework outlined in the OECD’s *Future of Education and Skills 2030* calls for the development of “social and emotional skills, such as empathy, self-awareness, respect for others, and the ability to communicate,” as they transform classrooms and workspaces into more ethically, culturally and linguistically diverse spaces (OECD, 2019). The first key idea in the UNESCO report, “Pedagogies characterized by solidarity, and cooperation,” calls for creating a system that embraces diversity and pluralism. This is echoed in the fourth UN Sustainable Development Goal, which aims to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.”

As established in the analysis, Uruguay lags behind in the development of global competencies, yet Uruguayan students are more interested in learning about other cultures than students in other PISA-participating countries. This enthusiasm, paired with teacher support for integration of digital devices in

⁴⁴ See Figure 1 for selection of PISA measures of “global competence.”

instruction, creates optimal conditions to implement global competencies more widely. *Plan Ceibal* is well-positioned to respond to student and teacher motivation by providing more opportunities for intercultural activities as well as international collaboration and exposure.

Global competencies in Plan Ceibal

At present, *Plan Ceibal* offers a variety of initiatives which allow for international collaboration and global understanding. For example, Bebras Computing Challenge is an international initiative where students and teachers from fifty countries develop their problem-solving skills. Additionally, *Plan Ceibal* has partnered with the FIRST LEGO League (FLL) Challenge to offer FLL in Uruguay, organizing a yearly competition in which the three winning teams participate in international competitions. Uruguay has recently seen significant success on the international stage in FLL, and one winning team member highlights the “invaluable experience of interacting with students from across the world.”⁴⁵ Moreover, *Plan Ceibal* also collaborates with ANEP on the *Red Global de Aprendizaje*, a worldwide collaboration program which encourages new approaches to teaching and learning in educational institutions around the world.⁴⁶

While these opportunities provide unique and beneficial experiences, they are largely exclusive. To pursue equity and inclusion in experiencing other cultures and developing global competencies, *Plan Ceibal* must offer more accessible and far-reaching programs.

Evidence of successful programs

The results from the global competence section of PISA 2018 provide an insight into which countries are developing students' global competencies and how they are doing so. The countries achieving the most favorable results in global competence were:

⁴⁵ Lautaro Ferraro, personal communication, 2021.

⁴⁶ English translation: “Global Learning Network.”

Singapore (students scored an average of 576), Canada (554), Hong Kong (542), Scotland (534), and Taiwan (527) (Davie, 2020).

Taking Singapore as an example, it is essential to highlight that, on average, students in Singapore annually engaged in 7.8 activities which developed some form of global competence, against the OECD average of 5.5 activities). The most common activity students engaged in was “learning about different cultures”, with 93% of students reporting they do so (OECD average 76%). 89% of students in Singapore reported they learned “how people from different cultures can have different perspectives on some issues” (OECD average 62%). Likewise, 86% had learned to “communicate with people from different backgrounds” (OECD average 58%) (Mostafa, n.d.). Specific engagement opportunities include discussions of contemporary issues, educational trips to cultural sites, research projects on various cultures, and immersion programs with schools in the region (Davie, 2020). In Singapore, even after accounting for students' and schools' socioeconomic profiles, interactions with people from different countries at school is positively correlated with the students' global and intercultural attitudes and dispositions (Mostafa, n.d.).

On the whole, the evidence indicates that students learn how to synthesize data and ideas from a variety of sources and perspectives in order to make well-informed judgments based on what they have learned. A globally-oriented curriculum engages students in their own learning and encourages them to pursue further knowledge and understanding of the world around them. As such, a curious and motivated student will have an increased desire to learn, both in the classroom and beyond (Asia Society, n.d.).

Recommendation and implementation

Based on the aforementioned analysis and evidence, and in acknowledgement of *Plan Ceibal's* ongoing efforts in designing opportunities for international collaboration, our theory of action for Recommendation 2 is as follows: if *Plan Ceibal* uses its technological capabilities and expertise to design and implement

experiences that promote global competencies, then students engaging with its programs will develop the necessary skills to become global citizens.

Our final recommendation is for *Plan Ceibal* to expand the current offerings for international collaboration and global exposure by developing global and intercultural activities on CREA. CREA is the optimal venue through which students could be exposed to global competency materials, given its widespread use among students and teachers, and Uruguay's near universal access to digital devices. These new online courses may include opportunities for students from different countries to talk to each other about their cultures, to debate topics of global importance (e.g. climate change, gender equality, migration), and to work together to present findings or come up with potential solutions. *Red Global de Aprendizaje* can be used to establish connections with other education groups.

It is recommended that *Plan Ceibal* leverages this proposal to:

1. Expand project-based learning opportunities for students to learn with peers across schools at a national and international level
2. Promote interactions amongst students of different social and cultural backgrounds
3. Provide activities that educate students about different cultures
4. Empower students to learn about issues of equity and diversity

Regarding the facilitation of developing attitudes and values in line with UNESCO's notion of "pedagogies characterized by solidarity and cooperation," it is recommended that *Plan Ceibal's* global competence curriculum and activities:

1. Challenge students to investigate the world
2. Consider a variety of perspectives

3. Communicate ideas clearly and sensitively
4. Encourage students to take meaningful action

The integration of intercultural activities within CREA, rooted in global competencies, is well-within *Plan Ceibal's* remit and capacity. Ultimately, increasing opportunities to engage in cross-cultural exchange and international collaboration will further advance Uruguayan students towards being active global citizens, as supported by the OECD and UNESCO.

16.6. Conclusion

Plan Ceibal is well-positioned to develop programs and influence policy decisions in alignment with the *Reimagining Our Futures Together* report by the UNESCO International Commission on the Futures of Education. After robust research and analysis, we provide two recommendations for immediate action: 1) expand teacher development through mentorship and 2) design a global competence curriculum within *Plan Ceibal's* existing infrastructure. Given its ubiquity and influence, *Plan Ceibal* has the means and capabilities to address some of Uruguay's most pressing educational issues, and move its education system ever closer to that of UNESCO's vision.

CODA

The authors of this paper met with Leandro Folgar, President of *Plan Ceibal*, and Gonzalo Baroni, National Director of Education at Uruguay's Ministry of Education and Culture in January 2022. The report and its recommendations were enthusiastically received by both parties. The authors received a further invitation to speak at *Plan Ceibal's* 2022 teacher conference to share their findings with a host of key stakeholders.

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