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An abstract graphic consisting of several concentric, overlapping circles in shades of purple and blue. Six white dots are scattered across the circles, with one dot on the outermost circle and five others in the inner layers.

Improving financial literacy skills for young people

Scaling the Financial Education Program in Jordan

November 2022

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Acknowledgements

This report was written by Molly Curtiss Wyss, with Jenny Perlman Robinson, Maya Elliott, and Omar Qargha, and with invaluable assistance from the team at the Center for Universal Education at the Brookings Institution and INJAZ—particularly Dr. Murad Awad, Larry Cooley, Ghida Hamed, Brad Olsen, and Katie Portnoy. Specific thanks to Patrick Hannahan for his enormous contributions to the Jordan Real-time Scaling Lab.

Our deepest gratitude to our Real-time Scaling Lab partners and colleagues in Jordan, who graciously allowed us to learn alongside them and who inspired us with their tireless efforts to ensure all youth in Jordan have access to quality financial education. In particular, heartfelt thanks to Dr. Ziad Fariz and Deema Bibi, who not only led Financial Education Program scaling efforts with their clear and ambitious vision but who were also willing to experiment and allowed the Center for Universal Education to document the successes and challenges of the process. Sincere gratitude and appreciation as well to Dr. Murad Awad, Ghida Hamed, Muhannad Jarrah, Ghaith Al-Shokairi, Farah Abu Safe, and Dr. Ali Yaghi for their leadership of the Real-time Scaling Lab and crucial research efforts. Wholehearted thanks go to all members of the Real-time Scaling Lab (see Annex II). We are also grateful to a wide range of additional colleagues who generously shared their knowledge and feedback on the research and the Real-time Scaling Lab process over the past several years.

We appreciate the continued guidance and support from two cohorts of the Millions Learning Advisory Group—the first chaired by the Honorable Julia Gillard, 27th prime minister of Australia, former chair of the board, Global Partnership for Education, and distinguished fellow at the Center for Universal Edu-

cation at the Brookings Institution—and the second chaired by Jaime Saavedra, global director, Education Practice, at the World Bank Group, and former Minister of Education, government of Peru. Please see Annex III for the full list of advisors. **Lastly, we wish to extend thanks to our peer reviewers,** Luis Crouch and Nedjma Koval, to our designer, blossom.it, and to our translator Translation Skills. Special thanks to those who reviewed draft reports in English and Arabic: Dr. Murad Awad, Larry Cooley, Ghida Hamed, Brad Olsen, and Dr. Ali Yaghi.

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Brookings gratefully acknowledges the support for the Jordan Real-time Scaling Lab provided by the BHP Foundation. The team also gratefully acknowledges support for the Real-time Scaling Lab project from the Bernard van Leer Foundation, ELMA Foundation (UK) through the Campaign for Female Education (CAMFED), Jacobs Foundation, the International Development Research Centre, Canada through the Foundation for Information Technology Education and Development (FIT-ED), and the International Rescue Committee. Brookings recognizes that the value it provides is in its commitment to quality, independence, and impact. Activities supported by its donors reflect this commitment.





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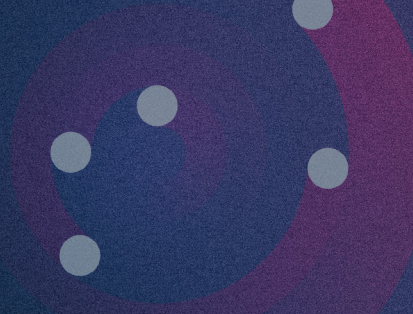
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Acronyms

CBJ	Central Bank of Jordan
CEO	Chief Executive Officer
COVID-19	Coronavirus Disease 2019
CUE	Center for Universal Education at the Brookings Institution
INFE	International Network on Financial Education
ICT	Information and Communications Technology
IT	Information Technology
FEP	Financial Education Program
FESC	Financial Education Steering Committee
FETC	Financial Education Technical Committee
MEL	Monitoring, Evaluation, and Learning
MoE	Ministry of Education
NFIS	National Financial Inclusion Strategy
OECD	Organization for Economic Cooperation and Development
PISA	Programme for International Student Assessment
PPP	Public-Private Partnership
RTSL	Real-time Scaling Lab
TLC	Teacher Learning Circle
UNRWA	United Nations Relief and Works Agency for Palestine Refugees

Introduction



Millions Learning, a project of the Center for Universal Education (CUE) at the Brookings Institution, explores scaling and sustaining effective initiatives leading to improved system-wide approaches. In the second phase of the project (2018-2023), CUE is implementing a series of Real-time Scaling Labs (RTSLs), in partnership with local institutions in several countries, to generate evidence and provide practical recommendations around the process of scaling in global education—encouraging a stronger link between research and practice. In 2019, CUE launched an RTSL in Jordan in partnership with the Jordanian NGO INJAZ focused on the government-led process of implementing, adapting, scaling, and sustaining the Financial Education Program (FEP) in grades 7-12 in all schools in the country.

Scaling the FEP in Jordan offers an exciting case study of significant scaling success, with a coalition of diverse stakeholders willing to support the journey from an initial idea, through continuous refinement and testing, all the way to the ultimate goal of full government ownership and delivery of the program in grade 7-12 classrooms across Jordan. This report unpacks some of the reasons for this success, including a public-private partnership (PPP) model that broke with traditional ways of working and brought together contributions from diverse actors for funding, advocacy, and implementation; a long timeframe to continuously test and refine the approach; a global movement for financial inclusion and a strong local enabling environment that supported scaling; and flexibility among all parties to adapt plans and react to a changing context in the wake of an international pandemic. The report also examines

some of the recurring challenges with scaling FEP, including monitoring and data collection, maintaining high-quality training at scale, and fostering buy-in at all levels—from the classroom up to the stakeholders within the Ministry of Education (MoE). By examining both success and challenges in the FEP scaling journey and documenting decisions made and adaptations tested to address these issues, this report highlights key lessons about what it takes to collaboratively scale an education innovation to the national level.

The report aims to inform education stakeholders in Jordan—including policymakers, especially at the MoE, practitioners, including the NGO community, and funders, including the Central Bank of Jordan (CBJ) and the financial sector—about successes, challenges, and practical implications of scaling FEP. While the report focuses specifically on the case of FEP, it also offers transferable lessons to global education stakeholders using an example of scaling through government institutionalization, an innovative multisector partnership, and a participatory and continuous learning approach to support scaling.

Section one provides an overview of the RTSL, the education and financial literacy ecosystem in Jordan, and the key actors engaged with FEP. Section two details the story of implementing, adapting, and expanding the FEP in Jordan to date—exploring critical factors, opportunities, and challenges related to its design, delivery, financing, and the enabling environment. Section three offers implications for sustaining FEP at large-scale in the future, as well as key takeaways from FEP's scaling journey that can inform the work of global education actors.

Box 1. What is “scaling?”

Scaling refers to a range of approaches—from deliberate replication to organic diffusion to integration into national systems—that expand and deepen impact leading to lasting improvements in people’s lives. This conceptualization of scale implicitly takes a systems approach, whereby the focus is not on growing an individual project but on enacting and managing a sustainable change in the broader system. For the FEP, the scaling approach is to reach students in grades 7-12 in schools throughout Jordan through a phased grade-by-grade roll-out and gradual integration of FEP delivery into the national education system.

What is a Real-time Scaling Lab?

An RTSL is a participatory research approach to explore scaling impact in education. The RTSL is not a physical space but a process, developed by CUE in collaboration with others, that combines ongoing documentation and analysis of the scaling journey with in-person and virtual workshops that bring together diverse stakeholders to collectively plan for sustainable scale, reflect on challenges and opportunities, and develop and test adaptations and course corrections to scal-

ing strategies through an iterative learning process. This report focuses on the case of the RTSL in Jordan. Other RTSLs have been implemented in Botswana, Côte d'Ivoire, the Philippines, and Tanzania (Figure 1). Although each lab focuses on learning from, documenting, and supporting the scaling of an individual initiative, the broader cohort of RTSLs also forms its own learning community. See Annex I for an overview of the RTSL methodology and criteria for RTSL selection.

The Real-time Scaling Lab in Jordan

Designing and establishing an RTSL in Jordan was a collaborative process. The lab followed the first phase of the Millions Learning project, which featured an in-depth case study on INJAZ's work in Jordan.¹ Building on this existing relationship and research, the RTSL was established to bring together key stakeholders to support, document, and learn from scaling the FEP. Launched in September 2019

in Amman, the lab process consisted of periodic convenings with diverse stakeholders to identify and explore questions and challenges related to the FEP scaling process, reflect on the root causes of these challenges, review relevant data and information, and strategically plan for adaptations to test to deepen the program impact and sustainability (see Figure 2 for more details).

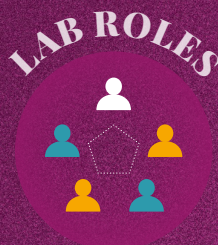
Figure 1: Jordan Real-time Scaling Lab at-a-glance: Financial Education Program (FEP)



The **National Financial Education Program** delivered to students from **grades 7 – 12**, and mainstreamed across all secondary schools, to improve the financial literacy of young people in Jordan through establishing a partnership between **INJAZ**, the **Central Bank of Jordan**, the **Ministry of Education** and other key national institutions.



1. **Expand and deepen the impact of the FEP** to reach more students with critical financial skills training and entrepreneurship knowledge that contributes to their development
2. **Support the MoE to gradually and sustainably assume ownership** of program implementation and future efforts to strengthen it
3. **Draw learning from the process** to strengthen the broader ecosystem of financial and entrepreneurship education in Jordan

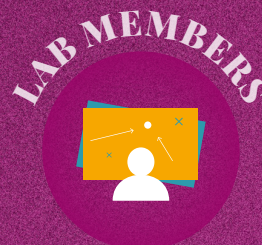


Scaling Lab Manager: Leads RTSL, facilitating convenings and guiding scaling discussions

Scaling Lab Researcher: Documents scaling process and leads the implementation of action research based on key priorities identified by the lab group

INJAZ: Hosts the RTSL, provides financial support to RTSL, contributes to design and implementation of lab

CUE: Collects, analyzes, and documents scaling process and lessons learned and provides capacity strengthening and peer learning opportunities



Representatives from:

- CBJ
- MoE
- National Center for Curricula Development
- Queen Rania Center for Education and Information Technology
- Abdul Hameed Shoman Foundation
- Association of Banks in Jordan
- Institute of Banking Studies
- Ministry of Digital Economy & Entrepreneurship
- Academic institutions and key education experts
- *Full lab member list in Annex II*

Source: Authors own analysis

Figure 2: Cohort of Real-time Scaling Labs

Botswana

Local partner Youth Impact	Initiative Teaching at the Right Level
--------------------------------------	--

Focus
Targeted instruction approach to literacy and numeracy implemented in grades 3-5 in primary schools in collaboration with Ministry of Basic Education

Phase in scaling journey Ongoing expansion in partnership with government	Target of Initiative Primary school
---	---

Jordan

Local partner International Rescue Committee	Initiative Ahlan Simsim
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Focus
Early childhood development intervention (including early learning and nurturing care) targeting children and caregivers affected by conflict and crisis in Iraq, Jordan, Lebanon, and Syria, through a combination of direct services and mass media in collaboration with Sesame Workshop

Phase in scaling journey Adapting to new context and new partnerships	Target of Initiative Early childhood development
---	--

Côte d'Ivoire

Local partner Transforming Education in Cocoa Communities	Initiative Teaching at the Right Level or Programme d'Enseignement Ciblé (PEC)
---	--

Focus
Remedial education through targeted instruction for literacy and numeracy in grades 3-5 delivered in primary schools and bridging classes in collaboration with Ministry of National Education and Literacy

Phase in scaling journey Ongoing expansion and integration into government	Target of Initiative Primary school
--	---

Tanzania

Local partner CAMFED	Initiative Learner Guides (LG)
--------------------------------	--

Focus
Life skills curriculum delivered by female secondary school graduates to secondary students as part of 18-month volunteer program with focus on transition to higher education and workforce, in collaboration with Ministry of Education, Science, and Technology and President's Office of Regional Administration and Local Government

Phase in scaling journey Ongoing expansion in partnership with government	Target of Initiative Secondary school and transition to workforce
---	---

Jordan

Local partner INJAZ	Initiative Financial Education Program (FEP)
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Focus
Financial literacy course implemented in grades 7-12 in all secondary schools, led by Ministry of Education and Central Bank of Jordan

Phase in scaling journey At national scale, focusing on sustainable impact	Target of Initiative Secondary school
--	---

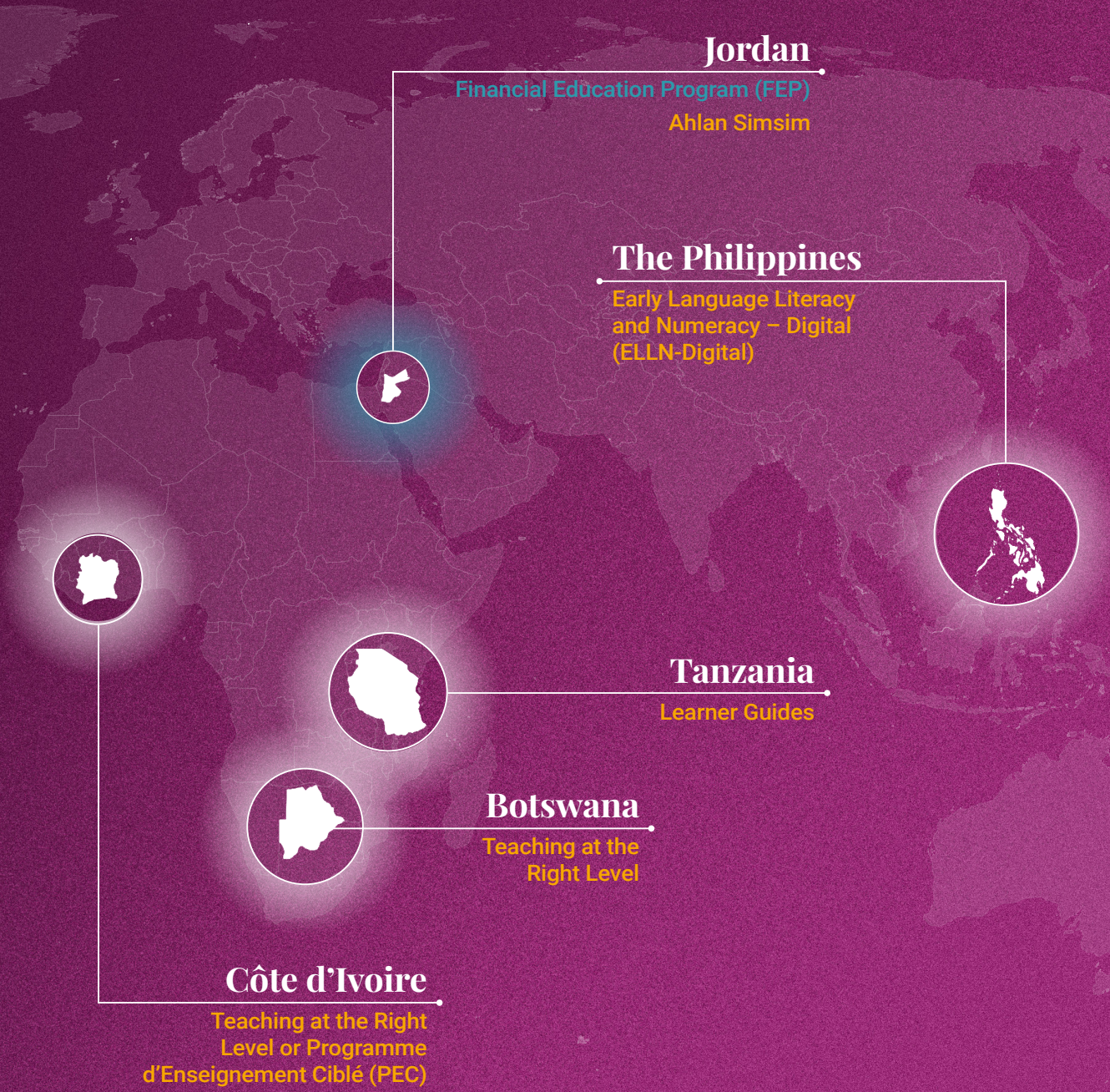
The Philippines

Local partner Teacher Professional Development @Scale Coalition, Foundation for Information Technology, Education, and Development (FIT-ED)	Initiative Early Language Literacy and Numeracy – Digital (ELLN-Digital)
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Focus
Blended teacher professional development model for K-3 teachers implemented in public schools, led by Department of Education

Phase in scaling journey Phased roll out by government	Target of Initiative Teacher professional development
--	---

Source: Authors own analysis



Education ecosystem in Jordan

Basic education, from age 6 through 16, is free and compulsory for all children and youth in Jordan, including refugees and young people from vulnerable communities.² After grade 10, students enter the upper-secondary education system, which is made up of academic and vocational tracks. To complete the academic track and proceed to higher education, training, or career options, students must take the national General Secondary Education Certification (Tawjihi) examination. Enrollment and retention in primary education is high, with 93 percent of children in school during the last year of primary and 98 percent of those students transitioning to lower secondary.³

While Jordan has a strong education system, it has been stressed by the inclusion of multiple waves of refugees over the past several decades. Today, Jordan hosts more than 1.3 million refugees⁴ (10 percent of the total population),⁵ one third of whom are of school-age.⁶ The influx of new students has put pressure on the existing school system and necessitated that some public schools adopt a two-shift model, with classes for Jordanian students in the morning and for Syrian and other refugee students in the afternoon.⁷ Despite the availability of free schooling, enrollment rates drop for refugee students in

the higher grades due to a range of factors, including family socioeconomic pressures.⁸

Even before the COVID-19 pandemic, there were challenges within the education system related to resources, infrastructure, and rural-urban inequality. Like in many countries, these challenges were only exacerbated by the pandemic. Teacher conditions^a and training have also been recurring challenges. While the pre-service training model has been enhanced in recent years, challenges still exist around teacher in-service training, which is focused on theory and cascade training models. In terms of learning outcomes, analysis of the 2018 PISA^b results showed that 40 percent of 15-year-old students scored below level 2 proficiency in science and reading, and 60 percent scored below level 2 proficiency in math. These scores place Jordan in line with other countries at a similar income level, though variation due to socio-economic background is lower in Jordan (6-7 percent) than the Organization for Economic Co-operation and Development (OECD) average.⁹ Performance on the national secondary school leaving examination also highlights some key strengths, as well as challenges, in the Jordanian education system. In 2021, the overall pass rate of the Tawjihi was 60.8 percent,¹⁰ the highest rate in recent years.

a. More than two thirds of teachers surveyed believe the profession is not respected in society; this was corroborated by a recent USAID survey of the general public, which found teaching the lowest ranked of 10 professional categories. "Pre-service Teacher Education in Jordan: National Survey on Public Perceptions of the Teaching Profession" (USAID, September 2020), <https://www.irex.org/sites/default/files/NPTS%20Summary%20Report-English.pdf>

b. The Programme for International Student Assessment (PISA) is a standardized assessment created by the OECD and used worldwide to measure the competencies of 15-year-olds in reading, math, and science. See: <https://www.oecd.org/pisa/>.

Box 2. COVID-19 impact on the Jordanian education system

In response to the spread of COVID-19 worldwide, the government of Jordan closed all education institutions on March 15, 2020. Schools remained closed through 2020 and part of 2021.¹¹ To support students learning at home, the MoE partnered with private-sector providers to develop the Darsak platform to share pre-recorded video lessons of K-12 classes with students. These videos were also broadcast on national TV. Despite the quick development of the online platform in March 2020,¹² access continued to be an issue for many students, particularly those from less fortunate communities or with limited access to reliable internet, estimated to be around 180,000 students or around 11.5 percent of the student body.¹³ Even with access to online learning platforms, only 62 percent of students accessed the platform daily.¹⁴ When schools fully re-opened in March 2021, more than 2.1 million students returned to the classroom.¹⁵ As in many other countries, projected learning losses as a result of COVID-19 school closures are significant. According to the World Bank, learning-adjusted years of schooling are projected to decrease by as much as 0.9 years for students in Jordan—both because of the number of school years being reduced and because of challenges with distance learning.¹⁶

Youth unemployment and financial inclusion

Jordan has one of the highest rates of youth (15-24) unemployment in the world.¹⁷ In 2014, when the FEP started, youth unemployment was around 27.9 percent, and by 2022 was around 40 percent, due in part to the economic downturn caused by the COVID-19 pandemic.¹⁸ This situation is even more serious when gender is taken into account. While Jordan has achieved gender parity in basic education enrolment,¹⁹ and more women than men now enroll in higher education, only 14 percent of women participate in the labor market—one of the lowest rates of female participation globally. In 2021, 90 percent of Jordanian and Syrian women ages 18-24 who were looking for employment were unable to find a job.²⁰

The Jordanian economy is heavily reliant on skills-based industries and services, including tourism, financial services, and a growing IT sector. As a result, the government has made investment in education and skills development a priority with the National Human Resource Development Strategy 2016-2025. The strategy was developed in recognition

of the fact that in a rapidly globalizing and increasingly digital world, the skills necessary for the contemporary workforce are changing and there is a need to address the mismatch between the education students can access and the needs of the employment market.²¹ This mismatch is critical as unemployment is linked to many forms of financial and social exclusion for youth, including delayed marriage, dependence on family, and lack of access to credit.²²

According to the World Bank, “Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit, and insurance – delivered in a responsible and sustainable way.”²³ Rigorous research over previous decades has shown that financial inclusion can be a powerful tool for addressing economic growth, poverty reduction, and income equality, especially for marginalized and vulnerable segments of the population. In addition to countering social and economic risks associated with

informal borrowing and lending practices, financial inclusion provides access to savings programs, formal borrowing programs, and insurance to weather economic and personal shocks.²⁴ It also has been shown to support gender equality,²⁵ long-term wealth generation, and increased availability and allocation of resources to enable greater long-term economic planning and activity.²⁶ However, it is important to note there are also broad criticisms of an over-focus by governments, particularly in the Middle East and North Africa region, on financial literacy and inclusion as a way to put the impetus for addressing the unemployment crisis onto citizens, rather than making micro-economic changes to the public and private sector labor markets.²⁷

According to the World Bank Global Findex, in 2017 58.5 percent of the general population in Jordan did not have access to a bank account.²⁸ Since 2017, these numbers have increased, particularly as a result of the use of mobile payments during COVID-19 for social protection activities.²⁹ It is worthwhile to note that since the launch of Jordan's commitments to the Maya Declaration (a global initiative for responsible and sustainable financial inclusion that aims to reduce poverty and ensure financial stability for the benefit of all), and the National Financial Inclusion Strategy, inclusion in the financial sector has expanded to 50 percent of the population, and the gender gap between men and women with access to financial services has been reduced from 53 percent to 29 percent.³⁰

However, younger people in Jordan continue to be particularly financially excluded, with 75 percent of youth (15-24) without formal bank accounts. Children and youth under 30 make up a majority of the population of

Jordan,³¹ so issues associated with financial exclusion for young people are expected to affect a growing majority of the country's population in the coming decades. Financial inclusion is particularly important for young people, who face higher rates of unemployment and informal work than the rest of the adult population.³²

While research shows that financial inclusion can play an important role in eradicating poverty and reducing social and economic inequalities,³³ there are also risks associated with financial services,³⁴ particularly around privacy protection as digital financial services proliferate. Thus, it is important for financial inclusion to be accompanied by efforts to improve financial literacy.³⁵ Research has shown that financial education in school curricula can lead to a number of positive financial effects, including better credit scores and lower rates of defaulting on loans, as well as better management of debt, increased long-term financial planning, and changes in borrowing patterns.³⁶ Early exposure to financial knowledge and skills is important for helping youth manage complex financial decisions and develop healthy long-term financial behaviors.³⁷ However, it is important to note that the pedagogical approaches used to deliver financial education programs affect their impact. Research shows that experiential learning that connects to real-life events is particularly effective for financial literacy education.³⁸

The focus on both expanding access to financial services and financial education is a crucial element of Jordan's National Financial Inclusion Strategy (NFIS). A landmark component of this effort is the nationwide FEP, which is based on a pedagogy of activity- and skills-based learning.



Photo credit: Shutterstock

The Financial Education Program

The FEP offers a full curriculum dedicated to financial literacy that is designed to be interactive, engaging, and relevant to students' daily lives.^c The MoE, INJAZ, the CBJ, and key national institutions, along with many other partners, have been involved in designing, developing, and implementing a phased roll-out of the program since 2014. Today it is a compulsory class for all school students in grades 7-10, as well as an optional elective for students in grades 11 and 12. As a nationally mainstreamed program within the education system, the FEP makes Jordan one of only 13 countries in the world with mandatory financial education.³⁹

The objectives of the FEP are the following:

- Address low levels of knowledge, skills, and behavioral attitudes related to financial literacy;
- Teach financial and economic concepts, such as how local and regional economic systems work and the basics of financial planning, budgeting, and investment;
- Instill the concept of financial work ethic among students and enhance their community leadership;
- Encourage youth to actively participate in innovation, entrepreneurship, and the development of the national economy; and
- Strengthen public confidence in the financial products and services offered by the banking sector.

The key partners involved in the roll-out and scaling of the FEP include:

- **The Central Bank of Jordan (CBJ):** The CBJ was established in 1964 as a monetary authority for Jordan and operates as an independent and autonomous corporate entity.⁴⁰ Its mission is to maintain monetary and financial stability and thereby contribute to the achievement of economic and social growth in the kingdom.⁴¹ In addition to its banking and governmental advisory activities, the CBJ also works to enhance financial inclusion and capability among the public.⁴² The CBJ launched the NFIS, which includes the FEP as a key pillar.
- **Association of Banks in Jordan and other key institutions:** The CBJ, in collaboration with the banking community, Al-Hussein Fund for Excellence (a nonprofit organization established by the Jordan banking community as part of its corporate social responsibility efforts), and the Abdul Hameed Shoman Foundation (a nonprofit initiative by the Arab Bank), has funded and championed the development and implementation of the FEP since 2014.
- **The Ministry of Education:** The MoE oversees 47 education directorates across North, Central, and South Jordan, including UNRWA^d and military schools. The MoE has been working with INJAZ to develop, test, and refine the FEP curriculum, and train supervisors and teachers from grades 7-12 on FEP.

c. The FEP course books for each grade are available here (in Arabic): <https://moe.gov.jo/ar/node/79345>.

d. United Nations Relief and Works Agency for Palestine Refugees (UNRWA) operates 169 schools serving 121,000 students in grades 1-10 in Jordan. <https://www.unrwa.org/activity/education-jordan>

- **INJAZ:** INJAZ, or "achievement" in English, is an independent Jordanian nonprofit organization that specializes in youth development, empowerment, and entrepreneurship—and prides itself on working with public- and private-sector institutions to achieve shared objectives. Since its launch as an independent NGO in 2001, INJAZ has reached

over 1 million young people through volunteer-led programs and private-public partnerships.⁴³ Financial literacy and financial education are one of the key thematic areas targeted by INJAZ. Since 2014, a core component of this work has been the development, testing, and national roll-out of the FEP in grades 7-12 across Jordan.⁴⁴



Photo Credit: ©shutterstock

Figure 3: **Scaling the Financial Education Program Timeline 2014-2022**



Foundation building phase

AIM

Understand the financial education landscape globally and within Jordan and begin to build a coalition of partners to support development of a national financial education program (FEP).

**2014
Preparation
Year**



- INJAZ carries out a study on global, regional, and local financial education practices and shared results with the MoE
- MoE, CBJ, and INJAZ develop a comprehensive plan for testing, revision, and rollout of FEP
- INJAZ pilots financial education for grade 7
- FESC officially designates INJAZ to execute rollout of FEP through a 7-year action plan.



Curriculum implementation and rollout phase

AIM

Design, test, and finalize FEP curriculum content, training, and supporting materials for grades 7-12, eventually reaching all public, military, and UNRWA schools in Jordan. Each grade's curriculum follows a participatory 3-year roll-out cycle. In year one, the curriculum and teacher guide were developed, and teachers were trained; in year two, feedback was collected, and the curriculum was revised; in year three, a final round of revisions was completed, and the full curriculum was handed over to the MoE. This process is repeated year after year for the remaining grades.

Year 1

MARCH 2014 - AUGUST 2015

- Partners develop work plan and general framework of FEP.
- Implementation of grade 7 v.1

Year 2

SEPTEMBER 2015 - AUGUST 2016

- Implementation of grade 7 v.2
- Implementation of grade 8 v.1
- Begin development of grade 11-TEM (temporary) early at request of MoE
- CBJ commits to the Maya Declaration
- INJAZ and CBJ participate in OECD study on financial literacy and inclusion

Year 3

SEPTEMBER 2016 - AUGUST 2017

- Implementation and full handover of grade 7 v.3
- Implementation of grades 8 and 11-TEM (literary track) v.2
- Implementation of grades 9 and 12-TEM (literary track) v.1
- Independent evaluation of first phase of curriculum rollout
- Launch of the National Financial Inclusion Strategy 2018 – 2020

Year 4

SEPTEMBER 2017 - AUGUST 2018

- Implementation and full handover of grades 8 and 11-TEM v.3
- Implementation of grades 9 and 12-TEM v.2
- Implementation of grade 10 v.1

Source: Authors own analysis



Testing adaptations to improve quality delivery phase

AIM

Continue curriculum roll-out and convene key stakeholders to assess central challenges with implementing FEP and test change ideas to improve delivery.

Year 5

SEPTEMBER 2018 – AUGUST 2019

- Implementation and full handover of grade 9 v.3
- Implementation of grade 10 v.2
- Implementation of grade 11 v.1
- Launch of RTSL

Year 6

SEPTEMBER 2019 – AUGUST 2020

- Implementation and full handover of grade 10 v.3
- Implementation of grade 11 v.2
- Implementation of grade 12 v.1
- Closure of all schools and education institutions on March 15, 2020 in response to COVID-19 pandemic, continuing for 148 days
- Launch of a national online platform and tv channels for distance learning
- Filming and production of interactive FEP video lessons for all FEP curricula
- Second RTSL convening
- Pilot of direct teacher training (in-person and virtual) with grade 12 FEP teachers

Year 7

SEPTEMBER 2020 – AUGUST 2021

- Implementation of grade 11 v.3
- Implementation of grade 12 v. 2
- Research, development, and contextualization of Teacher Learning Circles (TLCs) concept and training materials
- Pilot of TLCs and integration into direct teacher training model
- Proof of concept test for FEP lessons on an interactive Learning Platform as part of digitization efforts



Transition to full Ministry of Education ownership phase

AIM

Continue testing change ideas to improve FEP delivery, convene key stakeholders to identify core recommendations for taking forward the program under full ministry ownership, and transition FEP delivery fully to MoE.

Year 8

SEPTEMBER 2021 - DECEMBER 2022

- Implementation and full handover of grade 12 v.3
- Training FEP supervisors on using digital technologies in the classroom as part of digitization efforts
- Third and fourth RTSL convenings
- Scaling of TLC training for remaining MoE directorates
- Independent impact study on FEP implementation
- Completion of the FEP rollout and initiating final handover to MoE

The FEP scaling story



Over the past eight years, a range of factors contributed to the prioritization and implementation of the FEP across schools in Jordan. Some of these factors were intentionally created, while others emerged fortuitously and were identified and leveraged by key stakeholders. For example, global momentum for financial inclusion alongside international data on low levels of financial literacy in Jordan created a sense of urgency among key individuals for introducing financial education in schools. An innovative partnership among government, private sector, and civil society was established, with each stakeholder playing a complementary role to address this urgency. A critical feature of this partnership was its funding approach, which leveraged financing from the CBJ, private banks in Jordan, and other key national institutions to support the implementation and integration of the FEP in the educational ecosystem through a staged roll-out of the course grade-by-grade and a gradual handover of ownership to the MoE. From the beginning, the implementation included a data-driven, multi-stakeholder process of adapting and refining the curriculum and learning materials, creating space and willingness for iteration and for frequent feedback, and seeking reflection from key stakeholders. In addition, policy changes within Jordan, including the implementation of the NFIS and the signing of the Maya Declaration, provided further support for scaling the FEP within the political environment. While INJAZ benefitted from good fortune in multiple instances, they also had the mindset, agility, and preparation necessary to take advantage of these windows of opportunity and leverage them to support scaling the FEP. Since 2014, significant progress has been made toward institutionalizing the FEP within

MoE systems and processes, and a complete handover is planned for the end of 2022.

At the same time, implementing and expanding the FEP included notable challenges and illustrated some common barriers to scaling impact in education. These included a focus on the curriculum content at the expense of other elements of FEP, such as monitoring, evaluation, and learning (MEL), which led to a lack of rigorous data on implementation and impact; high rates of turnover at the senior MoE levels and varying levels of buy-in for the FEP at middle-tier, school, and classroom levels; limited capacity at the MoE to take over certain aspects of the FEP delivery, such as training incentives and the training of master trainers; difficulties with teacher recruitment, training, supervision, and support; and a global pandemic. The RTSL supported INJAZ and other key stakeholders in gathering additional information and testing adaptations to address some of these challenges, notably around data collection on FEP implementation and teacher training models.

This section will review the story of implementing, improving, and scaling the FEP in the Jordanian education system since 2014, examining critical enabling factors, opportunities, and challenges arising in the process. The findings are presented in six thematic sections which emerged in the research as central factors explaining FEP's successes and obstacles to date, and which the literature has demonstrated are key scaling drivers. These thematic areas are: scaling approach and strategy; enabling environment; partnership; champions and buy-in; teachers; and data, adaptation, and learning.

Scaling approach and strategy

Research on scaling impact in social sectors highlights the importance of planning for scale as early in the design and implementation process as possible.⁴⁵ Too often, pilot projects are designed in ways that are not sustainable at large scale or under real-world conditions.⁴⁶ For example, challenges to scaling within the broader ecosystem (such as opposition from interest groups) frequently do not emerge until after the pilot phase.⁴⁷ As a result, the consensus from the literature is that "If scaling up is intended, one should 'begin with the end in mind' and design the pilot in ways that enhance its potential for future large-scale impact."⁴⁸ This does not mean that scaling plans will not change over time, but rather that scaling considerations should be predicted and addressed from the beginning. The initial vision for scaling FEP—and the ways in which scaling was conceptualized by key stakeholders—shaped how the process unfolded, both in terms of advances and inadvertent constraints.

Vision for scaling from the start

In the case of FEP, there was clarity and alignment on the vision and pathway for scaling from the earliest days. Key decision-makers agreed that the goal was to mainstream the FEP across all schools serving students in grades 7-12 across Jordan and institutionalize its delivery so the program would eventually be embedded within the formal education system and sustained by the MoE. Scaling was not an idea that arose later but was the intended goal from the start. Furthermore, the MoE, CBJ, and INJAZ aligned around a staged process for rolling out the curriculum grade-by-grade, testing and refining it, and then handing it over to the ministry. This shared vision and careful sequence ensured that all critical decision-makers were on the same page and enabled a planning process that included considera-

tion of what would be required to allow the MoE to gradually take over FEP.⁴⁹

With initiatives originating *outside of* government, years of advocacy efforts must often be undertaken to foster government buy-in and make the case for scaling.⁵⁰ For FEP, this critical milestone was in place from the start, representing a significant scaling win.

Scaling as curriculum innovation

Despite these successes, there have also been limitations—many of them relating to the fact that scaling the FEP was primarily conceptualized by key stakeholders as adding content to the existing curriculum. This meant that other aspects of implementation and scaling were deprioritized. Put another way, the scaling process privileged content development and the revision of textbooks and teacher guidebooks, and initially neglected other elements such as MEL systems and organization of learning and learners.

To be delivered (by teachers) and taken up successfully (by learners), a curriculum innovation or reform must link to all other aspects of the educational experience—including teacher knowledge and beliefs, pedagogical approaches, how student learning is organized and assessed, the ways teachers and students work together, and other system components. Learning programs must address all aspects of implementation to ensure the impact and sustainability of a program and its long-term scalability. Once the FEP curriculum content for a grade was tested, amended, and fully transferred to the MoE, there was limited additional data collection focused on its efficacy, impact, or teachers' grasp of the material. Throughout this scaling journey, the assumption was that if the curriculum content was right and the FEP supervisors and teachers were trained correctly, the other elements of rollout would easily fall into place. Over time,

it became clear that **de-prioritizing the other aspects of implementation, such as MEL, negatively impacted the quality of FEP curriculum delivery in classrooms, limiting the program's potential impact.**

While the scaling literature strongly emphasizes the importance of simplicity and the need to reduce a program to its "core components" for improved flexibility and sustainability,⁵¹ this case demonstrates the risks of paring down too much. Scaling a new curriculum is challenging because it is connected to myriad other elements of the education system.⁵² Therefore, though it may at first glance seem simpler and more expedient to concentrate on the curriculum content alone, large-scale impact and long-term sustainability require a whole-systems approach to reform.^{e, 53}

Scaling through institutionalization

Great progress has been made toward full institutionalization of the FEP since 2014, but there have been real challenges maintaining quality while expanding reach and managing sustainability. As observed in the literature,⁵⁴ as well as the RTSL in Côte d'Ivoire,⁵⁵ capacity limits are a tangible constraint to institutionalization, particularly within a broader view of implementing a new curriculum. **While the gradual grade-by-grade rollout was intended to ensure that the capacity of schools and systems was not overtaxed, the reality is that at times capacity and personnel constraints did arise and create challenges. This case was the first instance in which an external actor (INJAZ) took the lead on the development of a new curriculum for the MoE, using a new approach to curriculum design and development, and some challenges naturally**

arose. This was reflected in the shortage of FEP teachers in the first year—given that there was not a financial education specialization at the time—leading teachers from different specializations to take on the FEP course as part of their required class load. In addition, some elements of FEP institutionalization needed to be refined over time. For example, when the FEP was rolled out in its first year, it was not integrated within student's assessment criteria—namely the end of semester school certificate.

Scaling through institutionalization means that the process of adaptation and expansion must fit within the confines of the existing system and how the system operates, even while attempting to establish new and lasting practices. This is a necessary part of scaling through institutionalization, but that does not mean it is easy. For example, the innovative, hands-on components of the FEP curriculum and pedagogy had to be balanced with existing curriculum structures and standards so that the FEP could form a coherent part of the broader system. INJAZ did not have freedom to push a pedagogical approach that deviated too much from conventional ways of teaching and learning in Jordan; it needed to work closely with the MoE, supervisors, and teachers to refine the activities and exercises so that they were compatible with what teachers and supervisors were already familiar with—without losing the core component of a student-centered approach. Finding the right balance between incremental adjustments and wholesale transformation is a hallmark of the complexity of scaling in education.

Finally, a focus on reaching as many students as possible and infusing the FEP into the system may have come at the expense of achieving impact in scaling. Negotiating tradeoffs among reach, quality, efficiency, cost, equity, and sustain-

e. Currently, debate is taking place in the scaling literature about the extent to which scaling efforts should take a systems-change approach or even if scaling efforts should begin by looking at the whole system rather than a specific innovation. See: Richard Kohl, "Scaling and Systems: Issue Paper," Global Community of Practice on Scaling Development Outcomes (2021).

ability in a scaling process is a common challenge.⁵⁶ Further, "Because scaling often leverages existing delivery mechanisms and systems to minimize additional cost and the extent of changes needed, it has a tendency to reinforce existing system challenges and neglect the "last mile," i.e., those most difficult to reach."⁵⁷ Moreover, as in countries across the globe, the COVID-19 pandemic revealed serious equity challenges in terms of access to technology and the internet. While the design of the FEP had a strong focus on equity and inclusion, in practice and especially during the pandemic, scaling efforts for less fortunate communities have been constrained by limitations in the broader education ecosystem.

These challenges do not mean that institutionalization is not a viable and indeed essential pathway to scaling in education or that there were not significant successes. Rather, these challenges underscore how difficult institutionalization is as a process, even where all parties are aligned and working together toward the scaling vision. Scaling within the system can bring real challenges, including the slower timelines and more onerous procedures of bureaucratic structures and norms, as well as capacity constraints, yet it opens the door to long-term sustainability. It is important in an institutionalization process to make a clear plan for addressing tradeoffs from the start, and in particular to ensure scaling plans are taking the most marginalized into account. It is also important for stakeholders to identify early on how both the institutions involved and government taking on the innovation can work together to think about equity, inclusion, and sustainability issues as the project goes to scale.

Handover and long-term roles

In terms of sustainability, while the plan for handover of the curriculum to the MoE grade-by-grade has been clear from the

start, there has been less clarity around what other aspects of FEP implementation will be handed over, sustained, and financed by the MoE and how. **Through the RTSL process, key stakeholders determined that it was essential for INJAZ to more actively support the FEP post-handover to the MoE, including through MEL processes, research for updating and digitizing the curriculum, and sharing lessons learned, to ensure smooth transition of ownership and sustainability.** This included working with RTSL members collectively and individually to articulate the scaling end goal and what gaps or challenges remained to achieve it, analyze the key drivers or levers essential to meeting the end goal, identify actions to test and data to gather related to these levers, and discuss areas where ongoing support from INJAZ post-handover would be particularly beneficial.

The question remains, however, what role INJAZ can or should play after the official handover in 2022. Organizations engaged in a process of institutionalization often envision a moment of 100 percent transfer of ownership, where the MoE fully takes on the entire program with no additional external support. However, in practice, experience demonstrates that "When handing off control to government partners, there is often a dip in impact resulting from limits in capacity, resources, and bandwidth and from the realities of implementing beyond a more controlled pilot setting," and there is important scope for the originating organization to continue playing some supportive role.⁵⁸ In the case of FEP, there has been a sense that post-handover, INJAZ will no longer have a function in FEP implementation, but given the capacity limits already facing the MoE and the critical role INJAZ has played to date, it would be worth exploring potential new or ongoing roles INJAZ might play in the near- to middle-term. These might include external support to MEL efforts and quality control; advocacy to build deeper demand and engagement across the system for financial literacy as part of the standard curriculum delivery and an expected output of the education system; test-

ing and refining adaptations and new content in response to new challenges and opportunities; and/or supporting schools and teachers to connect FEP activities to stakeholders in the broader community.

A supportive enabling environment

While significant attention is typically placed on the design of the initiative itself, in reality the scaling journey is substantially influenced by and contingent upon the broader contexts in which it takes place.⁵⁹ This includes the ways that norms, power dynamics, and values are explicitly and implicitly manifested in the political, economic, institutional, social, and cultural environment⁶⁰ and how changes in these environments—including elections, natural disasters, economic crises, pandemics, and demographic shifts—can also either constrain scaling or open windows of opportunity.⁶¹ In the case of FEP, **a newfound global momentum for financial inclusion and financial education, alongside international reports revealing low levels of financial literacy in Jordan, created urgency and therefore momentum on the part of a few high-level champions, bringing critical support for FEP. Subsequent policy changes within Jordan, including the implementation of a National Financial Inclusion Strategy, served to provide further support for the scaling of FEP.**

The decade before the launch of the FEP saw growing recognition of the importance of financial literacy and inclusion at the international level.^f Notably, in 2011, the Alliance for Financial Inclusion, a policy leadership alliance owned and led by member central

banks and financial regulatory institutions, launched the Maya Declaration.⁶² Within Jordan, advocacy efforts leveraged this global momentum for financial education to gain traction for change at the country-level, utilizing international data—including OECD study results, the World Bank Global Findex, a study by the World Economic Forum, and a diagnostic study by GIZ⁶³—to highlight high levels of financial exclusion in Jordan, low levels of financial literacy in Jordan, and global benefits of financial education.

In 2014, Dr. Ziad Fariz, the Governor of the CBJ at the time convened a meeting with key stakeholders—including the Minister of Education, the Minister of Planning and International Cooperation, Minister of Higher Education and Scientific Research, Minister of Labor, Chairman of the Board of Trustees of the King Abdullah II Fund for Development, President of the University of Jordan, and chairmen and directors from some Jordanian banks—to make the case for the importance of financial literacy for the country's long-term growth and stability. Alongside the governor, INJAZ presented information on the financial literacy situation in Jordan and a preliminary plan for a financial education program based on its own work and examples from other countries. The meeting established agreement on the need to launch a national program supporting financial inclusion, the first step of which would be incorporating financial topics into the existing education curriculum. As a result, in 2015, INJAZ officially partnered with the CBJ to create and implement a financial education program with the MoE and to mainstream it into the national curriculum.

The CBJ's 2016 commitment to the Maya Declaration and subsequent launch of a

f. In 2002, the OECD launched a Financial Education Project to study financial education programs in OECD (and some non-OECD) member countries for the purpose of analyzing their effectiveness, understanding their limitations, and making recommendations to policymakers on how to improve financial literacy in their countries. In 2008, the International Network on Financial Education (OECD/INFE) was created to take the project a step further to support policymakers to design and implement national strategies for financial education, including through collecting comparable cross-country data, developing methodologies to measure impact, and promoting effective implementation and monitoring of financial education. Launched at the 2011 Global Policy Forum in Mexico's Riviera Maya, the Maya Declaration was the first global and measurable set of commitments by developing and emerging country governments towards advancing the financial inclusion agenda. As of September 2021, Alliance for Financial Inclusion members have made 73 Maya Declaration Institutional Commitments, with over 885 concrete targets committed towards achieving their nation's financial inclusion agenda. More information: <https://www.afi-global.org/global-voice/maya-declaration/>.

NFIS further strengthened the policy environment for financial education in Jordan and therefore increased support for scaling FEP. Jordan's Maya Declaration commitment included "continuing to champion the financial education program into the existing Jordanian school curriculum from class 7 to class 11 by 2020," which later was extended to class 12 by 2022.⁶⁴ The 2017 launch of the NFIS provided additional political support for scaling the FEP in schools across the country.

Although the FEP and other financial inclusion programs pre-date it, the NFIS was a deliberate effort to bring these different approaches together to address the multiple facets of financial inclusion at a national level. The FEP formed a key pillar of the

NFIS as part of the larger effort around promoting financial education and capabilities for target groups that have been traditionally sidelined from financial services, as well as increasing financial awareness and literacy for the general public. When an innovation is seen as aligned with a broader policy environment, it can more easily find support for scaling. **In the case of the FEP and the NFIS, the two mutually reinforced each other, with the NFIS creating an enabling policy environment for scaling the FEP and the FEP becoming a key lever for achieving the goals of the NFIS.** In this context, FEP could be viewed not as a standalone project, but as a locally developed "solution provider," filling a gap not addressed in the system.



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Partnership

Healthy partnerships are typically a central feature of successful scaling efforts.⁶⁵ The enormous and multifaceted task of bringing a program to scale with quality and sustainability is often beyond the skills and capabilities of a single actor.⁶⁶ Multistakeholder partnerships can leverage complementary skills, resources, networks, capacities, and risk tolerances to strengthen scaling⁶⁷ and enable a division of labor that brings the value of each partner to the process.⁶⁸ At the same time, it is also clear that partnerships are often challenging to navigate, especially between organizations with different values, goals, and ways of working.⁶⁹ As such, "A key premise for partner selection should be a shared vision of delivery at scale and of the partners best equipped to overcome specific scaling bottlenecks. This is in stark contrast to the common practice of defaulting to the most familiar partners regardless of the scaling context."⁷⁰ **In the case of FEP, key stakeholders undertook an innovative partnership that broke with "business as usual" approaches to support a shared vision of scale to the benefit of FEP.**

Innovative partnership approach

The partnership between the CBJ, MoE, INJAZ, key national institutions, and other stakeholders was crucial to the FEP and a groundbreaking approach within the education system. The complementary expertise and responsibilities of each partner offered important contributions that strengthened and advanced the scaling process. In collaboration with the MoE curriculum department, as well as key national institutions including the Association of Banks in Jordan, Al-Hussein Fund for Excellence, and the Abdul Hameed Shoman Foundation, INJAZ and the CBJ led the development of the FEP framework, cur-

riculum, teachers'/students' manuals, training manuals and supporting materials. INJAZ also served as a progress monitor and conducted the training of MoE supervisors. MoE supervisors in turn trained teachers. The MoE took the leadership role in implementing the program across all schools and ensuring that the regulatory, organizational, and administrative procedures aligned with existing standards.⁷¹ The CBJ Project Management Office provided general oversight and served as the focal point coordinating between the partners. The involvement of the banking community and other key partners, secured through CBJ leadership, ensured financial support. FEP implementation was also monitored and supported by two multisectoral governing bodies⁹ established by a decree from the prime minister's office, with members from the government, banking sector, civil society, and academia. The support and engagement of these diverse stakeholders played an important role in transitioning the FEP from a plan to a reality.

The CBJ has played a critical coordination and leadership role in the program by using its position and convening authority to align partners around the shared objective of expanding financial education. The weight of such an important player behind the plan to introduce the FEP was key, especially for building the idea that financial literacy was an important priority both for the MoE and the banking sector. It seems clear that **without the CBJ championing the collaborative approach, the FEP would not have been successfully institutionalized as a national program.** The CBJ also played an important role in developing the technical content of the curriculum by providing knowledge and expertise on banking practices and financial knowledge concepts.

g. The Financial Education Steering Committee (FESC) is the governing body of FEP and oversees planning and implementation. It is made up of senior representatives from the CBJ, MoE, Association of Banks in Jordan, Ministry of Planning, Ministry of Finance, and the Abdul Hameed Shoman Foundation. The Financial Education Technical Committee (FETC) is made up of representatives from the CBJ, MoE, Association of Banks in Jordan, Financial Studies Institute, Ministry of Planning, INJAZ, and the Al-Hussein Fund for Excellence, and approves the technical aspects of the program.

INJAZ contributed its own established relationships with the MoE and private sector as well as strong links with communities and schools. When the FEP program started in 2014, INJAZ already had a significant history delivering financial education programming outside and within schools in partnership with the MoE and private sector, which laid the foundation for the FEP work. INJAZ began delivering financial education in 1999 as an extracurricular activity and then moved to implementing it in schools with volunteer facilitators. During this phase, teachers requested to be more involved with the program and INJAZ leadership felt that "involving schools and teachers more deeply would help ensure greater sustainability."⁷² As such, the strategy to scale the FEP nationwide in classrooms with teachers rather than volunteers was informed by INJAZ's past experiences. Partnership with Aflatoun, an NGO focused on educating children and youth about their rights and financial management, was also vital for enabling INJAZ to develop deeper expertise in financial literacy and supporting initial FEP development and implementation.

The FEP represented **the first instance where a new curriculum was incorporated into the national curriculum in Jordan in collaboration with an external actor**. This partnership pushed the boundaries on traditional ways of working within the MoE, where previously curriculum development happened internally without engagement of other government entities or external actors. The case of the FEP demonstrated the benefits of multistakeholder, cross-sector collaboration to support the development of education programs and paved the way for more creative and collaborative approaches to curriculum development and reform in the future. While the intention of implementing the FEP was not primarily

centered on pioneering a new way of working within the system, this innovative partnership model nonetheless represents a key success of FEP scaling.

At the same time, undertaking such an innovative partnership model was not without challenges. The new approach and diversity of the stakeholders meant that initially "different sectors struggled with what would be deemed appropriate, acceptable, and innovative in the program. Specifically, it was evident that the longstanding traditions and processes implemented by the MoE would pose challenges, especially if no flexibility would be offered through trial-and-error."⁷³ This is not unique to Jordan, but a broader challenge faced in institutionalization processes.^h Worsham et al. underscore that "Governments often have limited ability or appetite for experimentation and risk, due, in part, to the responsibilities of managing taxpayer dollars and/or working in under-resourced settings. Governments often proceed with longer timelines and slower, more complex processes due to diffusion of decision-making power and managing multiple constituencies."⁷⁴ For the FEP, MoE procedures and structures at times significantly slowed down progress and decisionmaking, limiting in particular the ability to quickly react to new issues or test adaptations. The internal workings of the MoE could also be siloed, such that not all divisions or departments were equally aware of plans around the FEP or communicating with each other about progress. Finally, given that the MoE did not have a history of collaboration with NGOs on national curricula development, the innovative partnership required a shift in how the ministry worked, and at times hesitations to engage external actors in activities typically conducted within the ministry arose.⁷⁵

h. For example, findings from the RTSL in Côte d'Ivoire noted that cross-sector partnerships, including with the private sector, play a critical role in institutionalization efforts, but "Overly complex or mismatched partnerships can significantly hinder the process." As such, the case study concluded that it is essential to pay close attention to diverging incentives and visions for scaling when exploring potential collaboration and recognize that more is not always better in a multistakeholder partnership. (See Molly Curtiss Wyss and Jenny Perlman Robinson, "Improving children's reading and math at large-scale in Côte d'Ivoire: The story of scaling PEC," (Washington D.C.: Brookings Institution, 2021)).

Dependable financing through an innovative PPP model

An essential feature of this partnership was its funding approach. To finance FEP, the CBJ and all commercial banks agreed to contribute a portion of their local annual profits. From the beginning of the project until 2019, each bank contributed 0.15% of local annual profits with a minimum contribution of 20,000 JOD.ⁱ Starting in 2020, the proportion increased to 0.3% of local annual profits, with a minimum contribution of 40,000 JOD, as resource needs for scaling FEP grew and simultaneously an economic downturn due to the pandemic decreased bank profits. These contributions are in addition to annual contributions from the Abdul Hameed Shoman Foundation and the Al-Hussein Fund for Excellence. Funding was channeled through and governed by the CBJ. These contributions to the FEP from the CBJ and commercial banks will end after 2022, when the program is fully handed over to the MoE.

This innovative financing arrangement was originally spearheaded by the CBJ with the purpose of establishing a "financing system that would sustain the development of the program and ensure a fixed flow of money to maintain costs of its implementation and amendments over time."⁷⁶ To secure their agreement, the CBJ governor made the case to the commercial banks that contributions were important investments in the future health of the financial sector and would increase understanding, participation, and trust in financial services and institutions among the population. Investment in the FEP was therefore framed not as corporate social responsibility or charity, but as beneficial to the banking sector itself.

The unique model was a critical driver of FEP's scaling success. The biggest and most obvious benefit was the guarantee of stable funding over a significant period of time. It is

hard to understate the contribution of such a guarantee in driving the scaling process forward, given that securing financing for scaling is a well-documented and substantial challenge.⁷⁷ Financing for innovation or piloting is often easier to secure, but "Funding the transition period (i.e., the scaling up process) is aptly referred to by some as crossing the 'Valley of Death,' given the absence of resources earmarked for such purposes and long lead times normally needed to change funding priorities."⁷⁸ The guarantee of funding for the full scaling process was therefore a critical advantage. Additionally, unlike many programs that originate outside government, scaling the FEP was never reliant on international donor organizations or funders, whose priorities might shift or whose timelines might not align with scaling. The scaling process was fully supported by domestic resources. Finally, the guarantee of funding facilitated buy-in from the minister of education for the program. As both champion and funder, the CBJ governor was able to advocate for scaling the FEP to the minister and make the case based on the need and potential benefits, while providing reassurances that the ministry would not have to worry about financing the high funding requirements for such large-scale program implementation. Having a guarantee of stable, local financing was an extremely rare position for a minister to be in when deciding to adopt a new initiative.

The implementation of the FEP also benefitted from financing flexibility, particularly in the later stages of rollout as the relationship between the partners had strengthened over years of collaboration. Initially there were concerns about how to make changes or test adaptations that had significant cost implications, but over time, INJAZ generally could reallocate budget lines for alternative activities, which increased its ability to test adaptations and new concepts generated by the RTSL and to make course corrections where needed. In particular during the COVID-19 response, this flexibility

i. As of August 25, 2022, 20,000 Jordanian dinar (JOD) are equivalent to approximately \$US 28,208.

allowed INJAZ with CBJ approval to reallocate funding earmarked for student competitions to support digitization of the FEP curriculum (see Box 5). Likewise, a budget line was allocated to pilot an interactive learning platform for grade 10 FEP students, with the aim of testing its effectiveness on students' learning. Additionally, with the CBJ's agreement and support, INJAZ could allocate a budget line to pilot and scale the concept of Teacher Learning Circles, as part of the recommendations generated through RTSL convenings, although there was not a previously allocated budget line for this research activity (see Box 4).

However, the guarantee of available funding may have had the unintended consequence of reducing the obligation to rigorously analyze FEP's cost-effectiveness or scaling costs. Cost data was collected in the form of financial reporting and INJAZ made regular financial and progress reports to the CBJ on spending as an accounting and accountability exercise. The project was also audited internally and externally, and some analysis was done on training costs to inform decisions. However, more extensive analysis was not conducted on cost-effectiveness or costs versus benefits. It may be that the

guarantee of funding made demonstrating FEP's cost effectiveness and its marginal cost compared to existing spending on secondary students less of an acute concern compared to other activities.

Looking forward, the plan is for the MoE to assume responsibility for all aspects of financing the FEP once the handover is completed in 2022. While financing from the partners supported the process of implementing the curriculum grade-by-grade, the intention is for long-term financing to be included in the ministry budget. This is a critical step of institutionalization and generally considered incredibly hard to achieve; an important signifier that a government "owns" a program, rather than just tolerating it, is the inclusion of the costs of the program inputs in the government budget. As such, transition of FEP financing to the MoE will mark a monumental achievement for sustaining the FEP within the system. However, the transition period when a funder is exiting is a vulnerable time when sustainability can be at risk.⁷⁹ Questions remain about how specific aspects of FEP implementation, especially financial incentive systems, will be incorporated into the MoE budget.



Champions and buy-in throughout the system

Within the partnership model, high-level champions at each of the leading institutions were essential to put the FEP on the agenda and keep the process advancing. A common feature in cases of successful scaling is the role of a visionary leader who can drive the scaling process forward.⁸⁰ Hartmann and Linn detail that "most successfully scaled up programs have been led by outstanding personalities," individuals who are strongly committed to championing scaling and have the credibility, connections, vision, and skills to inspire and motivate others, foster commitment, and secure resources.⁸¹

High-level champions

For FEP, this visionary was CBJ Governor Dr. Ziad Fariz, who played a pivotal role in championing the idea of financial education and securing support from the Prime Minister to formalize the program and institute the governance bodies. His stature was also essential for convincing the private banks to invest in financial education and focus on its long-term benefits, rather than targeting more immediate and visible gains.

In addition to visionary leadership, scaling requires champions with political capital and will. Due to her standing within the youth entrepreneurship and financial education ecosystem, the CEO of INJAZ, Deema Bibi, also played an important role in scaling FEP. Other critical champions advocating for FEP were located within the CBJ, Association of Banks in Jordan, MoE, Al-Hussein Fund for Excellence, and the Abdul Hameed Shoman Foundation and served as advocates both within and outside their institutions (for more details on champions, see list of RTSL members in Annex II).

Nevertheless, there is always a danger of becoming too dependent on a single champion or small set of champions. In the case of FEP, the significant benefits of high-level stakeholders championing FEP were counterbalanced

by high turnover rates at the MoE. Between 2014 and 2021, Jordan saw 10 ministers of education and changes in leadership at other levels of the MoE and the Association of Banks. Turnover is a common challenge in scaling efforts,⁸² and some research has shown that lack of continuity in government leadership is a broader constraint to sustaining reform efforts in Middle Eastern countries.⁸³ As a result of this turnover, INJAZ and the CBJ needed to frequently restart advocacy for FEP, relying on the strength of the CEO of INJAZ, Deema Bibi's network and connections in the education ecosystem to maintain buy-in. For example, the ability to secure meetings with new ministers to present the FEP was crucial to it not being deprioritized during key transitions. INJAZ also attempted to mitigate the challenges of turnover by institutionalizing relationships through Memoranda of Understanding with the MoE and engaging a large spectrum of stakeholders within the FEP governing bodies, so relationships were not concentrated with just a few individuals.⁸⁴

Buy-in across the system

While there were great successes with getting support from high-level champions, obtaining consistent buy-in at other levels of the system proved to be more of a challenge. This underscores the important lesson that **prominent and powerful champions for a program are not equivalent to system-wide demand or buy-in; a mandate from the top and a plan for scaling does not automatically translate into support from all players.**⁸⁵ While the financial literacy statistics made the need for financial education clear to the high-level champions of FEP, initially there did not exist a comparable demand for financial education in the wider system or an understanding of its benefits among the general population. The importance of financial literacy and inclusion had to be explained, fostered, and advocated for outside the circle of champions.

Even so, while awareness and interest in financial literacy and inclusion has grown, **there remains a "critical gap between the ambitious vision and strategy on a senior level and over-burdened staff and implementers on the ground."**⁸⁶ Buy-in remains largely clustered at the senior level of the MoE and has not permeated the other levels, particularly the middle tier. Linn and Kohl explain that "In most scaling efforts there is a presumption that many actors, especially public sector actors, will agree to play a needed role in scaling because the innovation addresses an important social or economic problem. ... [in fact,] scaling can elicit resistance or active opposition from vested interests simply because it involves significant change in attitudes or behavior for users, organizations and systems."⁸⁷ To this point, FEP implementation and scaling require significant additional time and human resources from individuals—especially FEP teachers—who may already feel overworked.

Low buy-in for FEP can also be observed at the school level, among school directors, teachers, and students. This is compounded by the fact that many MoE staff do not see the FEP as a core subject but rather as an "extra" course, not an equivalent priority to subjects such as math and science. Initially the FEP was thought to be an elective course like other INJAZ programs, creating a general misunderstanding, and thus was not taken seriously by school-level stakeholders or students. To address this issue, the MoE made the FEP mandatory for grades 7-10 and determined the course would factor into students' GPA. Despite these changes, low prioritization of the subject from MoE stakeholders continues to impact supervisors' and school directors' perception of the importance of FEP, which in turn impacts teachers' views.⁸⁸ When school directors do not understand or believe in the value of FEP, they cannot emphasize this importance to their teachers. The role of the school director is significant in scaling FEP (and curriculum reforms more broadly),⁸⁹ as they have the power to decide where in the class schedule the FEP classes fall and to determine which teachers instruct FEP classes.

They also play an essential role in legitimizing the innovative aspects of the FEP. Without support from the school director, teachers may not feel empowered to take up these elements in their daily practice.

Teacher buy-in for the FEP is also influenced by workload and perceptions of their own qualifications. Often, teachers are implementing the program without relevant expertise and on top of heavy workloads. Focus group discussions with teachers illustrated that many feel unqualified to teach FEP, which impacts their confidence and buy-in.⁹⁰ A 2017 study on FEP teacher perspectives found that while all teachers felt FEP raised important and beneficial topics, 51 percent also reported that it was difficult to deal with the curriculum, constituted a burden on the students, and the activities did not fit into the school's classroom environment.⁹¹ INJAZ and the CBJ have provided financial incentives for teachers and MoE supervisors to participate in FEP training and curriculum feedback efforts—and also to the FEP committee at MoE—but the sustainability of these incentives is unclear after the handover, and the quality of the training and ongoing support remains an issue (see Box 3). Without visible prioritization of FEP on the part of MoE representatives and school leadership and consistent efforts to address teacher needs, many teachers do not have strong incentives to become fully trained on the FEP content and deliver the curriculum in an engaging way.

The lack of teacher enthusiasm and traditional style of instruction often employed in FEP classrooms also translate to low student buy-in. Focus groups conducted by INJAZ revealed that like teachers, many students see value in financial education and believe it is relevant to their lives theoretically. However, they are frequently put off by the approach to FEP's implementation from the teachers, who often only read lessons from the book and emphasize memorization.⁹² This issue is exacerbated by the grade 11 FEP curriculum being viewed as a difficult course; in some

cases, teachers actively discouraged students from selecting the class as an elective in grade 11 to protect their grade point average. Conversely, field visits have demonstrated that where teachers are enthusiastic and make financial literacy an engaging class, students feel more excited about the curriculum. Teacher enthusiasm also results in better learning outcomes for students, as these engaged teachers are typically more prepared and put additional effort into the class than their counterparts.⁹³

Teachers

Teachers play a central role in bringing the FEP curriculum to life in classrooms. As a result, the ways they are selected, trained, supervised, and supported to teach the FEP has had a great impact on implementation quality and fidelity, as well as on student learning. As referenced in the previous section, in the early years of the rollout, teachers faced many barriers to implementing the FEP and often received little tangible incentive to put in the work required. Some of these barriers were specific to the FEP itself, and others were related to the Jordanian education system. Although there have been some “star” teachers willing to learn, practice, and perfect their delivery of this new curriculum, many felt they were under-prepared, lacked a deep understanding of financial education and confidence in their ability to teach the subject, and struggled with the new content and pedagogical changes that high-quality FEP implementation requires. Since 2019, INJAZ has invested considerable effort to continually revise and test adaptations to teacher training and support in response to these issues. While this is important, improving the FEP’s quality and sustainability requires more than simply strengthening teacher training and qualifications. It may also require building supportive whole-school and professional structures that encourage and equip teachers to become committed, knowledgeable,

engaged, and empowered to take ownership of the curriculum and add their own pedagogical input and creativity into the FEP classroom.

INJAZ identified awareness raising on the importance of financial education as a critical activity to address the challenge of low buy-in for the FEP from school directors, teachers, students, and their families. Some activities such as national competitions and awards were explored to build engagement and offer non-financial incentives but need to be built out more. As such, there is ongoing need for advocacy at all levels of the system around the importance of financial inclusion and the potential benefits of the FEP.

engaged, and empowered to take ownership of the curriculum and add their own pedagogical input and creativity into the FEP classroom.

Teacher selection often based more on availability than qualifications

Throughout rollout, the MoE faced difficulties balancing the need to identify teachers with relevant skillsets for the FEP and the need to ensure teachers had a balanced workload. Ultimately, the latter was privileged.⁹⁴ To date, teachers—specifically for grades 7-10—have largely been selected to teach FEP classes not because of their specific interests or qualifications but based on availability in their schedules. For grades 11 and 12, FEP teachers must meet certain criteria set by the MoE, such as having a business, accounting, public administration, or finance bachelor’s degree. For grades 7-10, however, FEP classes have often been delivered by “out-of-field” teachers, who were either originally hired to teach the national information technology (IT) program until it was eliminated or who work on subject areas unrelated to financial education. As a result, many FEP teachers are not qualified to teach financial education specifically and do not always have a strong understanding of the material, particularly in the higher grades where the concepts become more technical.

Teachers being asked to teach subjects outside their trained disciplines has perennially appeared as a problem in education.⁹⁵ Unsurprisingly, insufficient subject matter knowledge^j can affect teacher confidence, instruction quality, and student learning outcomes.⁹⁶

Research has shown that "Subject-specific training of teachers is responsible for more effective teaching resulting in higher student proficiency," whereas "Unsupportive environments where teachers are left on their own to learn unfamiliar content and teaching practices can lead to poor development of teacher competences and confidence, to teacher attrition or poor teacher well-being, and potentially poor student outcomes."⁹⁷ This challenge is not exclusive to Jordan or to financial education programs, but a broader issue of teachers being required to teach outside of their subject(s) due to issues including teacher shortages and attrition, teacher distribution, school scheduling, and managerial expediency.⁹⁸ However, the challenge of out-of-field teachers is particularly relevant for financial education courses around the world, given they are often an add-on topic for teachers of other subject areas and there are few programs that train teachers exclusively to teach financial education.⁹⁹

In 2015, just prior to FEP, the MoE made the decision to dissolve the IT stream of the national curriculum. This decision left hundreds of teachers and administrative officers without jobs or transferred to non-teaching positions. INJAZ was able to leverage this by re-training former vocational and IT teachers to deliver FEP, alongside existing teachers from other subject areas. However, this approach also brought complications to the scaling effort, particularly in terms of incentives and buy-in. Many of these former IT teachers primarily

saw this opportunity as a means to re-enter teaching but were not particularly interested in the topic of financial literacy. There was also resistance to taking on FEP instruction from existing teachers who already found themselves with excessive teaching workloads after the elimination of the IT stream. Additional challenges arose when the FEP was introduced in grades 11-12, where the highly technical content meant the re-trained IT teachers were no longer qualified to teach the course in those grades without additional training. The lack of specialized FEP teachers remains an issue as schools continue to base FEP course assignments on teacher class schedules and many teachers continue to have skill and knowledge gaps around delivering the FEP.

To address this, the MoE is creating standards, selection criteria, and exams for teachers interested in teaching the FEP to create a specialized selection and preparation process for financial education teachers.

Weaknesses with teacher training

Compounding this lack of qualifications are challenges with the training model. To date, FEP training has primarily taken place using what is called a cascade model, in which FEP master trainers train MoE supervisors across the education directorates, who in turn train teachers. Cascade training is a popular model for implementing and scaling teacher training, particularly when the aim is to reach a large number of individuals quickly and without significant financial resources.¹⁰⁰ However, the model has been widely found to have a low impact at scale.¹⁰¹ A commonly-occurring and well-documented limitation of the cascade model is the issue of information loss or "leakage,"¹⁰² where some of the content and quality is lost, misinterpreted, or watered

j. Shulman (1986) argues that this subject matter knowledge should include not only content knowledge on the topic in question (which, for example, an individual who had majored in financial topics at university would also possess), but also an understanding of how to effectively teach that content. This means also having pedagogical knowledge—"which goes beyond knowledge of subject matter per se to the dimension of subject matter knowledge for teaching" including an understanding of "the most powerful analogies, illustrations, examples, explanations, and demonstrations" related to that topic—and curricular knowledge—which includes an understanding of the variety of alternative methods, tools, and approaches available for instruction on that topic. See: Lee Shulman, "Those who understand: Knowledge growth in testing," *Educational Researcher* 15,2 (February 1986), pp. 4-14, <https://www.wcu.edu/webfiles/pdfs/shulman.pdf>.

down with each successive stage of training. Trainers beyond the first tier—being non-experts themselves—are often neither well positioned nor sufficiently prepared to deliver training to the subsequent cohort.¹⁰³ These limitations largely held true in the case of FEP.

The challenges with FEP teacher training are magnified by the larger issue of low financial literacy among the Jordanian population in general. The MoE supervisors who were charged with training teachers were non-experts in the FEP and so, themselves, did not always have sufficient content knowledge to answer teacher questions and ensure their strong understanding of complex and specialized financial topics such as consumer protection, social security, and insurance. Further, in some cases, substitute teachers in rural areas or on temporary contracts have not had any access to any FEP training.

To address the limitations of the cascade model, INJAZ piloted an alternative training model as part of the RTSL. The new model removed the middle tier of the cascade so that master trainers engaged directly in training FEP teachers for the higher grades. The purpose of the pilot was to assess whether this direct training resulted in teachers better prepared to deliver the FEP curriculum compared to those who had undergone cascade training. The initial pilot in September 2020 was very small scale (training nine teachers), but the high levels of enthusiasm from participating teachers motivated the MoE to replicate the model with a second, larger pilot in January 2021 (see Box3). While teachers' and the MoE's enthusiasm led INJAZ to view direct training as a successful adaptation to the FEP training model, questions remain about the sustainability of the model at large-scale.



Photo Credit: ©shutterstock

Box 3. Direct teacher training



RATIONALE

In the original cascade model of training, INJAZ trainers trained FEP supervisors on the curriculum content and pedagogy, and then the supervisors replicated the training with FEP teachers. However, during this process, it was observed that parts of the content were often left out or incorrectly delivered, leading to teacher confusion, insufficient grasp of the content, and low confidence, especially for the higher-grade classes. Quality delivery of the FEP emerged

as a central challenge during the 2017 phase I evaluation and subsequent focus groups and interviews with teachers. The quality challenges with the cascade model are well-known (see page 37 for more detail) and can be particularly acute for financial literacy programs like the FEP, a subject area that teachers have often not studied previously. INJAZ developed a direct teacher training model to address this challenge and improve the training quality and efficacy.



TESTING THE ADAPTATION

INJAZ proposed master trainers directly train a selection of grade 11 and 12 teachers. The MoE agreed to test the adaptation but suggested that FEP supervisors also be included, so they could receive the same training as teachers and continue to support them. A committee was formed with the MoE focal point and experienced MoE and INJAZ master trainers, and measurement tools were designed to gather teacher feedback and assess differences in teacher performance between those trained directly and those trained through the original cascade model.

ba in October 2020. Feedback from participants was very positive, and following the training, the MoE requested the research move directly out of the pilot phase and into a follow-up training for a larger cohort of teachers. Due to another wave of the pandemic in Jordan, this follow-up training took place virtually in January 2021 with 36 11th and 12th grade teachers. The ministry expressed interest in continuing the model once COVID-19 emergency measures had ended.

Original plans and timing for the training had to be adapted as a result of COVID-19. While a much larger training and research process was initially designed, limitations on in-person gatherings and lockdowns meant that instead a much smaller pilot for nine 12th grade teachers was held in Aq-

In July 2021, another direct teacher training session was planned for FEP teachers and supervisors. Noting the unique opportunity that the model created to bring FEP teachers and supervisors together, INJAZ decided to use this direct training to introduce participants to another adaption being tested concurrently: Teacher Learning Circles (TLCs) (see Box 4).



KEY FINDINGS & LESSONS LEARNED

- *Positive feedback:* Teachers shared that they preferred the direct approach, as the expert trainers could answer questions about some advanced concepts that MoE supervisors could not.
- *MoE involvement:* MoE attendance at the trainings proved useful for ensuring the training sessions' alignment with ministry standards and for getting buy-in for the adaptation.
- *Peer learning:* Teachers found direct training sessions were good opportunities for exchanging ideas, resources, and expertise with other FEP teachers - a finding that is foundational to the TLCs. Building on this, INJAZ used its July 2021 direct training to introduce and sensitize teachers and supervisors together on the TLC model.
- *Limitations:* While the direct teacher training model has been well-received by teachers and supervisors, it has been much more limited in the scope and research approach than initially envisioned, and questions remain about the training's effectiveness in changing teacher practices as well as the scalability and sustainability of the model. In the medium term, INJAZ will share a list of the content experts and master trainers they use for the direct teacher training with the MoE, but it remains to be seen how this model will continue after the full handover. More data collection on the training's impact on teacher practices and student learning would be beneficial.

Insufficient teacher support and supervision

Lack of follow-up supervision and support for teachers has heightened the challenges with training, especially for those teaching outside their subject expertise. The literature demonstrates that some weaknesses of the cascade model can be remediated through supplementing initial training with more interactive follow-up and support, which goes beyond monitoring and evaluation to include reviewing the training material and cementing learning, answering questions, and helping teachers work through implementation challenges.¹⁰⁴ Further, research on out-of-subject teachers suggests they benefit strongly from ongoing support to assist them with incorporation of new content and pedagogical knowledge and to build their capacity.¹⁰⁵

However, in a 2019 study, MoE supervisors reported that their visits to FEP teachers were rare unless principals specifically requested them, and some supervisors did not use the specified tools to monitor or assess FEP delivery and teacher performance.¹⁰⁶ Outside of supervision, teachers received limited or no guidance, mentoring, and support after FEP training. MoE supervisors have faced challenges consistently following up with teachers for

several reasons, including: the limited number of visits for MoE supervisors, difficulties commuting long distances between schools, and the fact that the supervisors are generalists who must incorporate FEP supervision into their existing workloads. To address the need for more specialization and strengthen accountability, in the 2020/21 school year, the MoE began recruiting FEP-specific supervisors.

Given the limitations on what MoE supervisors alone can provide and the need for more continuous support and learning outside of the training process, in 2021 INJAZ piloted Teacher Learning Circles (TLCs), an adaptation emerging from the RTSL. Building on the fact that some teachers were already connecting with each other informally via WhatsApp or Facebook, the TLCs are intended to create a purposeful space for collaboration and peer support while also highlighting success stories so others can learn from them (see Box 4). In addition to formal training, this type of learning community can provide space for long-term learning and professional development,¹⁰⁷ empower participants to share their own experiences, acknowledge teachers as experts, and elevate the importance of their expertise,¹⁰⁸ while encouraging greater communication between educators and enhancing coherence across classrooms.¹⁰⁹



Photo credit: Ghath Al-Shokairi

Box 4. Teacher learning circles



RATIONALE

Early on, RTSL members identified “teacher buy-in” and “well-trained education stakeholders” as two core drivers essential to the success of the FEP. This derived from data showing that lack of buy-in and poor-quality training were negatively impacting teacher and student experiences with the FEP. Rather than seeing these as separate goals, INJAZ explored approaches to teacher training that would support and empower teachers to take ownership of FEP delivery. This included learning from the example of Lesson Study, a teacher peer-mentoring approach developed in Japan and being scaled in several

countries, including Zambia.¹¹⁰ One of Lesson Study’s core principles is to see teachers as agents of change rather than targets of training. Teachers are grouped into peer learning circles and follow a plan-do-study-act model focused on a specific lesson or common instructional challenge. Working together, teachers plan a lesson, observe each other teach it, reflect and revise the approach, and then repeat with a new concept. This model creates a platform for teachers to learn from each other while collectively addressing challenges that affect their daily practice in the classroom.



TESTING THE ADAPTATION

Based on Lesson Study, INJAZ contextualized the Teacher Learning Circles (TLCs) for the Jordanian context. The team assessed what FEP teachers were already doing to collaborate and share knowledge and focused on building the TLC model around these methods. For example, since 60 percent of FEP supervisors and teachers surveyed shared that they already learn either through online networks or in-person communities of practice, INJAZ incorporated *Microsoft Teams* chat groups composed of teachers from different schools into the TLC model to create ready-made platforms for teachers to share ideas. Before piloting the TLCs, a lab member and pivotal stakeholder advised first sensitizing FEP

supervisors and teachers to the model through an introductory training. In July 2021, INJAZ trained 140 FEP teachers and 20 FEP supervisors from 20 directorates across Jordan on the TLCs. The aim of this first phase was to test and institutionalize the model. The TLC training was approved by the MoE in early 2022 for scaling, and a follow-up training was conducted in spring 2022 for 192 FEP supervisors and teachers from the remaining directorates and newly appointed FEP supervisors for previously trained directorates. This ensured that all directorates in Jordan have a supervisor and teacher familiar with the TLC model and can plan to implement it in the 2022-2023 school year.



KEY FINDINGS & LESSONS LEARNED

- *Positive feedback:* Following the training, INJAZ conducted interviews on how participants intended to use the TLC model and how to improve the training. Only 20 percent of teachers were familiar with the TLC concept before the training, but afterward 70 percent had plans to implement it with their peers. Ninety percent of participants planned to dedicate time once per week to TLCs, engage school management in formalizing the model, and share knowledge with FEP teachers in other schools.
- *Just the beginning:* Implementation, monitoring, and institutionalization of the TLC model are still nascent. In the next year, it will be essential for FEP supervisors to stay in touch with teachers and connect with MEL staff at the MoE to learn if and how the model is working and where additional support or training might be required.
- *Mutually reinforcing adaptation:* The first phase of TLCs was focused on testing and getting buy-in for the model. When the opportunity arose to integrate with the direct teacher training, INJAZ adapted its approach in the second phase to tie these two research areas together in a way that led to greater learning and support for both approaches.
- *Institutionalization:* Moving forward it will be important to identify ways the model can align with existing standards related to teacher promotion to ensure participation in the TLCs is recognized. Rather than advocating for the introduction of new standards, INJAZ is working with the MoE to link the TLCs to existing criteria around teacher collaboration. This will ensure the approach can be sustainably integrated into the existing system and will provide a clear pathway for teachers to meet a promotion criterion that in the past has been difficult to prove and attain.

Teacher and classroom conditions constraining delivery

Finally, some realities of teacher conditions within the education ecosystem more broadly have had knock-on effects for FEP implementation. A general shortage of teachers means that instructors face heavy workloads, with limited additional capacity to devote to the FEP. FEP classes are only scheduled once per week for grades 7-10, which some teachers find insufficient to cover the material. Further, instructors are often rotated between schools on a recurring basis to ensure all classes are covered (these shifts are more frequent for vocational teachers such as those teaching FEP classes), while some schools depend on substitute teachers with temporary contracts to fill staffing gaps. These hiring and staffing mechanisms have real implications for FEP delivery, as they limit continuity in student instruction and can make it difficult for teachers and students to forge close relationships. Substitute teachers often have not received FEP training or a FEP teachers guide, significantly constraining their understanding of the material and quality of teaching.¹¹¹

Although many teachers might be ready and eager for new approaches, classroom realities, instructional norms, and the challenges of out-of-subject teaching also result in FEP instructors often relying on rote learning approaches to instruction—rather than more student-centered, interactive pedagogy, which is central to the FEP and which has demonstrated more effectiveness in producing strong learning outcomes.¹¹² It is important to note that this is not always the case, and there are many teachers who implement the FEP curriculum with the intended hands-on and interactive pedagogical approach. Nonetheless, Jordanian teachers typically manage large class sizes, which many feel constricts their ability to employ interactive pedagogy. Interestingly, there are some reports that rural schools are able to implement FEP particularly effectively because they have smaller class sizes,

which work well for the hands-on nature of the curriculum. Further, research has shown that out-of-subject teachers (which many FEP teachers are) often lack the depth of content and pedagogical knowledge necessary to facilitate interactive or collaborative learning activities, engage in nuanced discussions with students, make connections to other subjects, and/or tailor activities based on their experiences and student learning. Instead, they may feel limited to relying heavily on the content and activities included in the textbook and rote learning approaches.¹¹³ Beyond the FEP, the focus on more traditional rote teaching and learning styles is ingrained in the pedagogical culture in Jordan,¹¹⁴ which makes it challenging for teachers to break from. Additionally, the means for employing interactive pedagogical techniques can also lie outside teachers' control. The 2017 phase 1 FEP evaluation found that much of the interactive work for the FEP was supposed to happen outside the classroom (i.e., at home, during field trips, etc.), but few teachers were assigning students this work because the activities were not feasible given capacity or budget constraints or were outside their control.

Finally, preparation for the critically important Tawjihi exam in the higher grades emphasizes rote memorization and learning for the test, which further disincentivizes teachers from adopting new interactive learning approaches or focusing on topics outside the exam content. Some research has suggested that the structure of the Tawjihi and the immense role it plays for future academic and career opportunities have created tension for teachers and students between continuing to focus on common traditional approaches of memorization and teaching to the test versus spending time on 21st century skills and experiential learning.¹¹⁵ If both students and teachers are assessed and rewarded based on student performance on the Tawjihi, there are few incentives for putting in the time and effort required for interactive teaching and learning of FEP topics, which are not included on the test.

Data, adaptation, and learning

The need for scaling to be an iterative and adaptive learning process has become axiomatic within the scaling literature.¹¹⁶ There is broad consensus that while scaling should be planned for as early as possible, these plans must also shift as new information is learned, ideas are tested, and anticipated or unanticipated changes and opportunities arise. This type of flexible learning approach requires collecting timely data demonstrating what is working and where challenges are occurring and using these data not only for accountability but also for learning and adaptation.¹¹⁷ An iterative approach also requires a flexible mindset among implementers and "an 'authorizing environment' for decision-making that encourages experimentation and views course corrections not as failures but as critical features" of scaling.¹¹⁸ Gaps remain, however, in understanding *how* to incorporate data-driven adaptation and learning into scaling efforts in practice, given the realities of time and money constraints, human capacity limits, promised deliverables and timelines, hierarchical structures, and existing power dynamics.

Limited data on learning outcomes and the scaling process

One of the primary challenges facing the implementation of the FEP has been the lack of credible, comprehensive data assessing the quality of implementation, student learning outcomes, and the process of scaling itself.¹¹⁹ For most of the years of FEP rollout, data collection focused primarily on key program outputs—including the number of schools reached, number and gender of students enrolled, and number of teachers and supervisors trained—and on the curriculum revision process. A third-party evaluation of the first phase of FEP implementation was conducted in 2017, but aside from this there was little data collection or documentation assessing the quality or results of FEP imple-

mentation. Further, the quality of the existing data on student learning outcomes is uncertain, as it has been reported that tests on FEP content developed by teachers can be too easy and so may not be a good assessment of student learning.¹²⁰ Similarly, for the first years of implementation there was a paucity of data evaluating the challenges and weaknesses in FEP implementation. Prior to 2019, decisions were primarily made based on the statistical data mentioned above. No data has yet been collected on progress toward longer-term goals, such as increased financial inclusion, because students who participated in all six years of FEP classes only began graduating in 2021.

This challenge is not unique to the case of the FEP or Jordan. Data are essential to successful scaling, but many scaling efforts struggle to gather the information needed to support all aspects of the process.¹²¹ The MEL needs for scaling are different than those required during a pilot or proof of concept, and so data collection approaches must be designed specifically for each phase of scaling.¹²² Data on the impact of the program are crucial for understanding whether it is having its intended effect, as well as for helping "establish credibility, ownership, demand, and political backing,"¹²³ but impact data alone are insufficient. The purpose of a MEL plan for scaling is to provide data about whether and how scaling is taking place, including whether scaling goals are being achieved; what is working and not working during the scaling process; whether the program is maintaining its intended effect(s); what barriers or opportunities are arising; and where course corrections and adaptations might be needed.¹²⁴ This also includes assessing less tangible elements of scaling, such as the success of partnerships, the influence of power dynamics, or capacity gaps.¹²⁵ But this is not to say that more data is always better; a MEL plan that is too complicated or burdensome will not be ac-

tionable or sustainable at large scale: "Data is most powerful when it is able to support decisions or actions that drive scale."¹²⁶

In the case of the FEP, no overarching MEL plan or data collection framework was developed specifying responsibilities among partners or key performance indicators and outcomes to be targeted in each phase. The lack of comprehensive data collection in the first years of FEP implementation can be attributed to multiple factors. As discussed earlier, FEP rollout was conceptualized first and foremost as an effort to introduce new curriculum, and so data collection and analysis centered strongly (though not exclusively) on the content of the curriculum itself. Further, as each

grade of the FEP was handed over, the MoE viewed it as a core element of the national curriculum, which meant that data collection was limited to the standard approaches employed for other aspects of the curriculum (routine student exams created by teachers); the MoE chose not to collect additional data, such as on teacher understanding of the content or interactive teaching approaches. Finally, pioneering an innovative partnership meant that some adjustments to status-quo bureaucracies were challenging. For example, at times, hesitations arose over giving control of traditional ministry roles to an outside actor, and there appeared to be low demand for this type of information from the CBJ (which primarily requested data on program outputs).



Photo credit: Abdelhadi Qallab

Over time, the need for more comprehensive data on FEP implementation and effectiveness became clear to key stakeholders. It is challenging to improve what is not being measured, and without sufficient data demonstrating issues and their root causes, it is nearly impossible to address them. In the fall of 2019, members of the FESC and FETC governing bodies began to request more information on results and students' acquisition of financial education content alongside annual budget information. INJAZ similarly concluded that the standard approach to collecting data on the curriculum was insufficient to support FEP rollout, and it was necessary to gather data on impact and more closely monitor challenges arising in implementation.

The launch of the RTSL—bringing a focus on expanding and deepening the impact of the FEP through the collection and analysis of data to understand existing gaps and inform the testing of change ideas—also played a catalytic role in making the need for more data a clear and urgent priority. In particular, discussions in RTSL convenings between key stakeholders about the bottlenecks and challenges being faced in FEP implementation underscored the lack of comprehensive data and the need both for more documentation of the implementation and scaling process (past and current), as well as targeted qualitative data collection on issues such as teacher perspectives and student buy-in. In response to the gaps identified, the RTSL undertook a series of data collection and documentation activities—including a historical case study of the FEP prior to the launch of the lab; focus groups and interviews with school directors, teachers, and FEP students; and in-depth research on three adaptations being tested to improve FEP implementation and impact, including teacher surveys (see Boxes 3, 4, and 5). This data and learning were shared back with lab members in subsequent RTSL meetings to inform decisionmaking and next steps.

As a result, beginning in 2019, INJAZ made significant efforts to enhance its FEP documentation and data collection activities. As part of an organizational restructure and as part of the partnership with the RTSL, INJAZ created a new Research and Development department, which took on FEP MEL activities. In 2022, INJAZ is planning another third-party assessment of the impact of the FEP.

Data-driven adaptation

Conversely, looking specifically at the curriculum content and supporting materials, the FEP implementation and scaling strategy deliberately built a data-driven, iterative, multistakeholder process of adaptation and refinement into plans from the start. **There was a clear and shared understanding between the stakeholders involved that they would not get the curriculum content completely right on the first try, that changes and adaptations were not only expected but an intrinsic part of the process, and that ultimately this iteration would strengthen the final product.** During the revision process, feedback on the curriculum was collected at all levels, with MoE officials and technical experts, teachers, school directors, parents, and even students engaged in the process of refining the FEP content and offering insights on how to ensure it was responsive to the local context. Even the timeline for curriculum development was adjusted; originally planned for two years per grade, INJAZ and the MoE found that three years were needed and adapted accordingly. This approach to curriculum design was innovative for the MoE and offers an important example of how iteration and data-driven adaptation can be incorporated into a scaling effort.

At the same time and as discussed previously, this approach to continuous learning and refinement was not extended to other aspects of delivering the FEP for several years. INJAZ's focus on MEL and using data to improve FEP delivery started in 2019 and included identifying, developing, and testing three significant

adaptations to the model to address the most pressing challenges with FEP implementation—direct teacher training, TLCs, and digitization of FEP content and delivery.

The example of the FEP elucidates some important facilitating factors to undertaking adaptation during the scaling process, as well as some tangible barriers. As indicated, the fact that the adaptive approach to revising the curriculum was designed and agreed on from the start was an essential factor in its success. There was no sense that something had "gone wrong," only that the expected need for refinement held true. Multistakeholder engagement in the adaptation process was another critical facilitating factor, as it not only strengthened the adaptations themselves but also helped ensure buy-in for the changes from the many stakeholders involved. Outside of the curriculum content, a critical factor enabling testing an adaptation was MoE support and enthusiasm for the change. MoE engagement and ownership over a proposed adaptation facilitated the testing process and helped ensure the research conducted would be directly applicable to the MoE's decisionmaking. Strong positive feedback from teachers also played a central role in the specific case of direct teacher training; the swell of support from participating teachers encouraged the MoE to move forward quickly with expanding the adaptation and testing it with larger groups. Finally, testing adaptations within existing structures or planned activities helped move them forward quickly and reduced the challenge of finding additional resources.

Insufficient data was not the only limiting factor to adaptation in the scaling process. Adaptation was constrained at times by fear of or resistance to change from key stakeholders, as well as by limits on coordination and capacity within INJAZ and turnover at the MoE. In some cases, there also existed within the broader education system incentives that worked against ad-

aptations, such as when supervisors might want to continue their engagement in FEP training in order to receive the daily per diems, in contrast to the plan to test direct teacher training that eliminated supervisor involvement. Finally, an overarching challenge remains that adaptation takes a huge amount of time, effort, and capacity, and this reality was only exacerbated during a global pandemic, during which plans had to rapidly adjust to an ever-changing situation and the environment was significantly constrained.

The COVID-19 pandemic itself served both as an accelerator and a barrier to adaptation during scaling. On one hand, the pandemic offered an important window of opportunity to move forward quickly with adaptations related to digitizing FEP content and delivery. While this had been an aim of INJAZ for some time, this closure of schools suddenly resulted in strong reprioritization and a sense of urgency for digitization and distance learning on the part of the MoE. In addition, the pandemic enabled more financing flexibility than had previously been available. The CBJ was very willing to swiftly reallocate funds within the FEP budget to support digitization, which made timely adaptation possible. On the other hand, the pandemic served as a barrier for other adaptations, because it shifted focus to immediate response efforts, deprioritizing or postponing all other issues. Further, the waves of the pandemic created an unstable and unpredictable environment, such that plans made one month had to dynamically shift or pause the following month. In response to concerns about the transmission of COVID-19, the Jordanian government also enacted the National Defense Law, limiting the number of employees who could be present in offices across the country, resulting in significant reductions in staff working hours and salaries within INJAZ and reduced capacity at MoE, further diminishing capacity to take on additional adaptations.

Adaptation and institutionalization

Through the process of institutionalizing FEP delivery, a distinction arose between adaptations and changes that needed to be tested within the system with MoE approval and those that could first be tested by INJAZ outside the system without prior approval. It became clear that both types of adaptations were necessary, but that the latter were significantly quicker and simpler to move forward. The MoE procedures for approvals and decisionmaking limited how flexible, adaptive, and timely INJAZ could be with testing necessary changes to FEP delivery. Further, the timing for approvals could be hard to predict; stakeholders might wait months for an answer on a proposed change—only to have approval come overnight—requiring quick reaction that could be hard to plan. On the other hand, during the height of the COVID-19 pandemic when the need to adapt education delivery became ur-

gent, the MoE at times wanted to move faster and needed to expedite approvals for implementing adaptations.

To avoid some bottlenecks of working within the system, at times INJAZ got creative about ways to test changes, including leveraging existing structures or plans that already had allocated funding. For example, INJAZ's agreement with MoE and CBJ provides resources for training for FEP supervisors each year. Rather than seeking approval and funding for a separate training, INJAZ utilized this existing plan as an opportunity to also test a new training on the topic of "Modern Teaching Techniques and Integrating ICT into Education" as part of its efforts to digitize FEP in 2021. Albeit slower, pursuing changes within the system offers a stronger foundation for sustainability than action fully outside the system could. This brings to mind the famous quote about partnerships—"we go faster alone but further together."



Photo credit: Ghaith Al-Shokairi

Box 5: FEP digitization



RATIONALE

RTSL members identified digitization of the FEP curriculum early on as a key area of interest for multiple reasons. First, students themselves suggested digital content would make the class more engaging and enable hands-on learning. Second, digital content used in an interactive, blended format could also provide teachers with real-time data on student performance and facilitate more accountability for teachers. Third,

digitizing the curriculum was identified as a key cost-saver, given that a huge proportion of the budget for FEP roll-out was spent on printing textbooks and teacher guides. The diverse backgrounds and perspectives of the RTSL members—and particularly the inclusion of voices from the financial sector—were beneficial for understanding and emphasizing the importance of digitization of FEP and digital literacy.



TESTING THE ADAPTATION

During lab discussions in February 2020, lab members recognized there were many existing initiatives and many potential ways to digitize FEP content and delivery, and so they recommended starting with mapping current approaches to digital learning in Jordan to ensure alignment with existing initiatives. However, the interest and need for digital learning resources became a national priority overnight when COVID-19 closed schools in March 2020. The MoE quickly developed an online learning platform Darsak to share pre-recorded lessons with students, and several national television channels broadcast lessons (see Box 2). INJAZ joined this effort, recording FEP lessons for Darsak as well as for a separate INJAZ digital learning platform. However, there were limitations to the video format, as it offered no way for students and teachers to interact.

Once progress on developing the national platform was stalled, INJAZ began to think about how to use an existing partnership with a private sector ed-tech partner, *Learning Possibilities*, to test the digital content they had created on an interactive platform. While switching to testing FEP digitization using a private sector platform enabled this work to restart, concerns about data privacy and integrating an external platform into MoE systems caused new challenges and delays. As a result, rather than a full pilot as originally envisioned, a small proof of concept was carried out with three FEP lessons in six grade 10 classrooms in 2021.

As the pandemic continued and it became clear that school closures would extend into the next school year, INJAZ and the MoE recognized that they needed a more interactive learning approach after gathering feedback that FEP teachers preferred synchronous learning in which they could communicate directly with students and assess progress. The MoE requested that INJAZ develop interactive videos for grades 7-12 financial education classes, with CBJ reallocating funds to support this work. A committee was formed, INJAZ established an internal studio to create videos, and the MoE worked to identify teachers and develop scripts based on the FEP curriculum. Research instruments were also created to assess student knowledge and teacher performance before and after using the new approach and were compared against a control group. However, subsequent school closures and turnovers at the MoE delayed and then eventually halted progress on these plans.

Throughout this period, INJAZ was also increasingly hearing from teachers that they needed support using digital resources, regardless of the platform. To respond to this need, INJAZ designed a training session for teachers on "Modern Teaching Techniques and Integrating ICT in Education." The initial training was delivered by Aflatoun to 42 FEP supervisors in October 2021. Based on feedback from the first session, in early 2022 INJAZ began revising the training approach to focus on five days of practical training with ICT tools. Moving forward, this training will be further tested by INJAZ with the hope of being formally adopted by the MoE as part of the teacher promotion system.

Looking ahead, there are clear opportunities to integrate lessons learned from the digitization process into larger efforts to establish a national blended learning system. Lab members noted this will be a key opportunity to include FEP content in this new system as well as share findings from INJAZ's previous research with a broader array of education stakeholders and funders.



KEY FINDINGS & LESSONS LEARNED

- *Pressure to adapt rapidly:* While the pandemic provided a chance to accelerate progress on digitizing the FEP curricula, the need to create content that suits the Darsak platform requirements conflicted with INJAZ's perspectives around creating high-quality interactive materials. This was a common challenge experienced by many education providers during the pandemic. By maintaining the partnership with MoE and CBJ though, INJAZ was able to create asynchronous content in the short-term and in the medium-term adapted funding to support creation of more interactive content.
- *Limited ICT access and capacity:* Access and infrastructure continue to be important considerations for digitization. 67 percent of

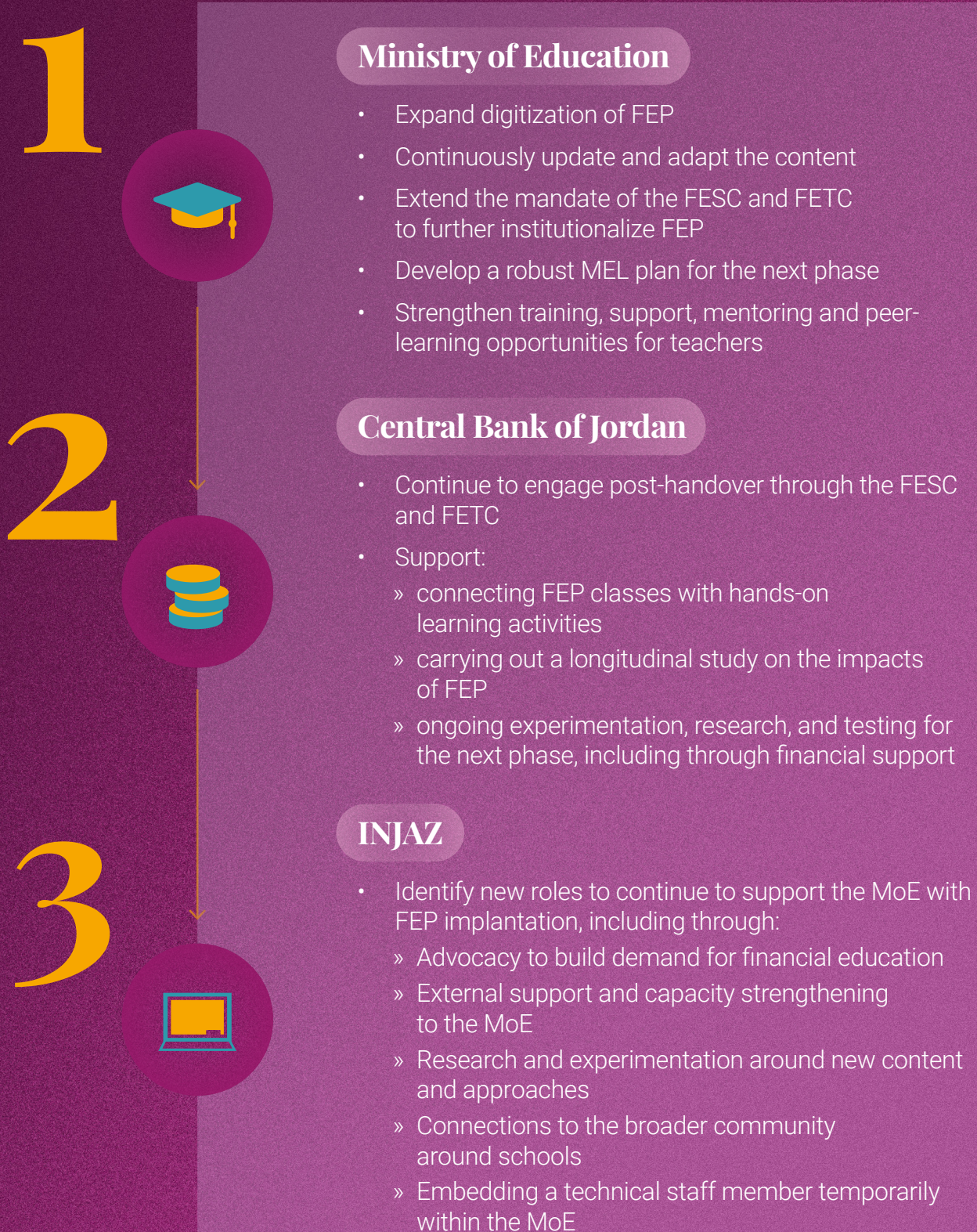
FEP supervisors surveyed considered proper and supportive infrastructure a challenge to integrating ICT within their teaching. At the same time, there is strong use of digital technology, with 80 percent of FEP teachers now reporting using it during daily class activities. These findings illustrated a new area of work related to digitization not originally envisioned, which is based on feedback from teachers and focuses on supporting teachers to use and create their own digital resources. By developing a skills-based training to help teachers digitize their own content and use it in their lessons, INJAZ could support teachers directly in a way that has the potential to be sustainably adopted into the system and create impacts beyond the FEP program.



Photo credit: Ghida Hamed

Figure 4: Summary of considerations for sustaining FEP in Jordan

Key stakeholders of FEP—in particular the Ministry of Education, the Central Bank of Jordan, and INJAZ—may wish to consider the following as they contemplate next steps in FEP’s journey. These implications were developed collaboratively with RTSL members, drawing on their deep expertise as well as from the learning to date about the FEP scaling journey.



Considerations for sustaining FEP delivery and impact

Significant progress implementing, adapting, and scaling FEP into the Jordan education system has been made over the past eight years. Nevertheless, "Change is a process, not an event."¹²⁷ While 2022 will mark the achievement of a central scaling goal with full handover of the FEP curricula for grades 7-12 to the MoE, this milestone is neither the end of FEP's story nor a guarantee of perpetual success. There remain important questions about the FEP's long-term impact and sustainability.¹²⁸ Though the next phase of FEP implementation is beyond the scope of this study, this analysis of the scaling journey to

date can offer some important lessons about institutionalizing and sustaining change in an educational system.

Key stakeholders of the FEP—in particular the MoE, the CBJ, and INJAZ—may wish to consider the following as they contemplate next steps in FEP's scaling journey and in particular ways to support FEP quality and sustainability following full handover to the government. These recommendations were developed collaboratively with RTSL members, drawing on their deep expertise as well as from the learning to date about the FEP scaling journey.

For the Ministry of Education

- To expand the digitization of the FEP curricula and strengthen the digital capacities of students, teachers, and supervisors, next steps could include:
 - Increase teacher and student access to interactive, digital FEP lessons, with a deliberate focus on those less fortunate and in rural areas. This could be accomplished through the inclusion of interactive FEP content on the MoE online learning platform already accessible to all students and teachers in Jordan. A pilot could be carried out by uploading existing digital FEP content and studying how teachers and students use these digital materials to enhance their FEP learning experience.
 - Create additional multimedia and high-engagement content like videos and infographics about FEP subjects.
 - Continue to put a deliberate focus on issues of equity and inclusion to ensure students without connectivity are not excluded from these learning opportunities.
 - Provide additional capacity strengthening support to FEP supervisors and teachers to increase their digital competencies. This could include:
 - Training teachers on the practical application of ICT tools and how to create and use their own digital content.
 - Supporting teachers to identify how they can connect content in the FEP

-
- textbooks and teacher guides to online resources and tools.
- To continuously update and adapt the content of the FEP curriculum so that it is relevant and engaging. Next steps could include:
 - Incorporate broad overviews of emerging financial technologies, such as blockchain and cryptocurrency, into the content, understanding that these are new topics where there is much still to be learned.
 - House FEP content on an online portal, allowing for quick updates to curriculum content to ensure the FEP remains relevant in the rapidly changing universe of digital finance.
 - Support schools and teachers to connect FEP activities to stakeholders and national institutions in their community and engage in hands-on activities outside of the classroom. An example could be field trips to banks and the National Children’s Museum.
 - Integrate FEP learning activities like field trips within the annual plans for the implementation of activity classes that are already in students’ class schedules in order to institutionalize them.
 - Consider bolstering sustainability of FEP through further institutionalization, including extending the mandate of the FESC and the FETC past official handover, defining new roles for these bodies for the next phase, and continuing to engage them to support the next phase of FEP implementation and sustainability.
 - Consider developing a robust MEL plan for the next FEP phase that is integrated and aligned with the broader work of the MoE and the Queen Rania Center for Education and Information Technology. It is especially important to use data not just for accountability purposes, but also for learning and continuous improvement. It could be useful to develop a MEL plan that assesses not only number of students receiving FEP instruction but also impact, equity, and institutionalization of the program.
 - Reach: The tracking of FEP teachers and supervisors could be strengthened by collecting data on who is teaching FEP classes, whether they have received training, and other related issues.
 - Impact: It is important to move beyond gathering information on enrollment or inputs and collect data related to results, such as developing a feasible way to assess student learning related to the FEP. This could include the development of evaluation tools for teachers to measure student learning in the classroom and/or utilizing international assessments, such as the optional PISA financial literacy assessment or the OECD Financial Education Assessment tools.
 - Equity: Make a clear plan for measuring and addressing equity and inclusion issues in FEP delivery, to ensure the impact of the initiative reaches all groups of students and teachers in governorates and regions that are less fortunate. This should include tracking disaggregated data—with a deliberate focus on the most disadvantaged students—to understand variations in FEP implementation and outcomes.
 - Institutionalization: Collect data on less visible elements of FEP delivery, such as buy-in from school principals, demand for the program from communities, and support in the education ecosystem. Fully incorporate FEP data collection in the operations of the MoE Planning and Research Department. Clearly delineate roles and responsibilities related to MEL, including identifying areas where INJAZ or other external partners might continue to provide support and capacity strengthening in the short- to middle-term.
 - To strengthen the training, support, mentoring, and peer-learning opportunities for teachers delivering FEP, next steps could include:
-

- o Partner with key stakeholders to supply specialized master trainers for directly training FEP teachers in certain challenging specialized curriculum areas based on need.
- o Integrate FEP training into teacher pre-service training to create a pipeline of instructors prepared to deliver financial education and reduce training costs.
- o Expand TLCs to build teacher buy-in, confidence, and ownership over the FEP and enable teachers to be agents of change. Link participation in TLCs to the teacher professional development evaluation/promotion system and integrate TLCs as a complement to existing in-service FEP training.
- o Consider expanding the peer learning model to also include the development of Student Learning Circles for the FEP.

For the Central Bank of Jordan

- Continue to support FEP implementation post-handover through engagement and leadership in the FESC and FETC governance bodies.
- Consider how to support connecting FEP classes with hands-on activities to enrich the curriculum, such as visits to the banks, the National Children’s Museum, and guest lecturers from the CBJ and banking sector, to raise awareness on the importance of financial services.
- Consider funding a longitudinal study, in collaboration with the MoE, on the impacts of the FEP— looking not just at financial literacy, but also at issues related to financial inclusion and employment.
- Consider providing ongoing financial support for experimentation, research, and testing adaptations in the next phase of the FEP, which will be important as new challenges arise and changes happen in the education ecosystem.

For INJAZ

- In response to MoE needs and in collaboration with its partners, identifying new or ongoing roles to support the MoE after the official handover of the FEP could be valuable. INJAZ might even serve as a type of "learning lab," working outside the formal education system but with strong ties to it, that could test and refine adaptations in response to challenges and opportunities arising in a timely and data-driven manner. These activities might include the following:
 - o Advocacy: Undertake advocacy efforts to build deeper demand and engagement across the system for financial education, including among school leaders, teachers, students, parents, and community members.
 - o Quality control and MEL: Provide external support and capacity strengthening to the MoE to implement a clear and ongoing MEL strategy for the FEP.
 - o Research and experimentation: Support testing and refining adaptations in response to new challenges and opportunities arising in FEP delivery and the enabling environment in support of MoE implementation. Undertake targeted research, such as how to adapt the interactive FEP pedagogy to the constraints teachers face in the classroom, especially large class sizes.
 - o Connections to the broader community: Support schools and teachers to connect FEP activities to stakeholders and national institutions in their community and engage in hands-on activities outside of the

classroom, drawing on INJAZ's current programs and significant experience leveraging the business community as key speakers, volunteer teachers, mentors, and inspirational leaders.¹²⁹ Some INJAZ field offices, such as the one in Aqaba, have already led the way in linking schools to FEP-related activities outside the classroom.

- Transition support: Consider embedding an INJAZ staff member with deep knowledge of the FEP temporarily into the MoE to support the transition and handover process.
- Higher education: Explore possibilities for extending the FEP content to additional audiences, including potentially in higher education and teacher training institutions.



Photo credit: Hadi Alqallab

Key takeaways for education stakeholders in and outside of Jordan

In addition to the specific implications discussed in the previous section, the case of FEP also offers relevant insights on the process of scaling and sustaining impact in education that may be transferable to other programs within Jordan, as well as in other countries. The following section provides a synthesis of key takeaways, drawn from the FEP scaling story.



Scaling strategy

Organizations working to scale through institutionalization will be rewarded for their patience, flexibility, and clarity on timeline.

The "slow pace of government" has been reported as one of the greatest challenges for partnering with government and the case of the FEP demonstrates how this approach can require more time, effort, capacity, and processes than scaling outside the system. However, though exceptions certainly exist, institutionalization should be the default goal for many education initiatives because ministries of education are the bodies mandated to provide education to all children and youth. As such, while patience is always essential for scaling since it is a long-term endeavor, this is even more true for scaling through institutionalization.

Simplicity is important for scaling, but it is equally important to ensure a program or initiative is not oversimplified and a whole system approach is taken so that core components leading to impact are not excluded or deprioritized. The case of FEP underscores, for example, that scaling an education program should not be reduced to a primary focus on merely the curricular content and supporting materials, as this risks sacrificing quality and impact. For the FEP, supporting elements related to teacher training, monitoring, mentoring, and overall data collection were also "core," yet this was understood only after the initial rollout had taken place. It is useful to consider at the beginning all of the system components that will need to be addressed for lasting impact.

It is critical to be cognizant of how scaling within the existing system might inadvertently replicate social inequities and biases within that system. Institutionalization of an initiative or program does require tradeoffs with the realities of the existing system, and this process of aligning and potentially adapting a program to fit in the system is an essential component when moving from pilot to large scale. However, it is simultaneously important to collect and use data to track issues related to equity and inclu-

sion and proactively consider how tradeoffs between these issues, as well as efficiency, cost, impact, and other concerns, will be addressed so that scaling does not exclude or marginalize specific groups or focus only on reaching the "average" learner.

Assessing capacity and planning to build capabilities are important steps in planning for scale. A primary challenge of institutionalization is that existing human and technical capacity on the part of the "adopting organization" is frequently limited and needs strengthening. Limited capacity on the part of the originating organization can be a constraint, too. These factors must be considered thoroughly in a scaling strategy.



Enabling environment

It can be beneficial to link local advocacy efforts to global movements and leverage the windows of opportunity they create, while still working to emphasize the local context. In the case of the FEP, a global movement for financial inclusion and international data highlighting key gaps in financial literacy among the Jordanian population created a sense of urgency among a few individuals and key national institutions for implementing financial education in schools and eventually led to a national policy environment that strongly favored FEP scaling.



Partnership

Breaking the status quo and testing new models of partnership take courage and require a willingness to experiment, make mistakes, and adapt along the way. In the case of the FEP, the MoE impressively dared to undertake a partnership that broke with traditional ways of working. The diverse partnership brought long-term funding, cultivated buy-in from high-level stakehold-

ers, and united the complementary skillsets, capacities, networks, and resources of the partners. Challenges did arise, however, in determining how roles and responsibilities were divided, and at times the MoE was hesitant to share implementation of certain activities with external actors. Pioneering new forms of partnership requires recognition that the approach might not fit neatly into existing decision trees and bureaucratic processes. Some temporary "messiness" will need to be embraced and learned from, so that a healthy middle path between maintaining the status quo and changing everything can be forged.

It can be tempting to assume that an organization such as INJAZ can fully hand over a program one day and completely cease involvement, but it is more likely that some ongoing role will be required in the medium term. The experiences of another RTSL in Tanzania suggest that transitioning roles and responsibilities "necessitates not only the innovators' openness to change, but also forward planning to ensure the handover happens without dilution of quality or impact. This requires a two-pronged effort: 1) sharing practical knowledge for implementation and engaging in open and creative discussions about adaptation for delivering at scale and 2) identifying where ongoing external partnership is required."¹³⁰



Financing

Public-private partnerships can be a powerful tool for securing sufficient, stable funding for scaling between the pilot phase and national-level implementation if incentives can be aligned around a shared goal. Without CBJ funding, the MoE may not have been able to finance FEP scaling and it likely would not have been mainstreamed across all schools in Jordan. However, partnerships between the public and private sector are not a guaranteed or one-size-fits-all solution

and stakeholders need to be realistic about potential areas of misaligned incentives or conflicts of interest and consider whether the benefits of such partnerships outweigh the potential risks. It was observed in another RTSL in Côte d'Ivoire that while collective action is central to scaling, "Overly complex or mismatched partnerships can significantly hinder the process."¹³¹

Limited resources for MEL after the pilot phase can be significant barriers to data collection and data-driven adaptation.

Where possible, it could be beneficial to explore linking financing to the achievement of key milestones and short-term outcomes, not just outputs, with flexibility around timelines and how the milestones are accomplished and with opportunities to reallocate funding as needs arise. In addition to devoting larger proportions of funding to MEL, it would also be useful for funders to include additional flexible funds earmarked for testing adaptations and responding to changes in the broader ecosystem that arise during scaling.



Champions and buy-in

To mitigate the common challenges of turnover of government champions and overreliance on a single visionary leader, it is important to diversify contacts and institutionalize relationships through formal structures. In the case of the FEP, INJAZ sought to moderate these constraints through institutionalizing its partnership with the MoE through an MoU. INJAZ engaged with diverse high level and technical champions through formal governance structures, such as the FETC and FESC, leveraging the CEO's strong network to quickly foster relationships with new actors and utilizing the multistakeholder RTSL structure to engage and update key players.

It cannot be presumed that an initiative or program that addresses a pressing need in

the system will automatically get support from key stakeholders simply because of its inherent benefits, especially if its scaling requires significant additional time, capacity, resources, and/or attitude and behavior change on the part of those stakeholders.

The case of the FEP illustrates high-level champions for a program are not synonymous with demand or buy-in across the system. Deliberate and resourced efforts are required to foster understanding, engagement, and buy-in for a solution at all levels—from regional policymakers to communities and schools. Further, clear accountability mechanisms and incentives are crucial for supporting quality implementation.



Teachers

Participation in training or even demonstration that participants have learned new material does not guarantee that teachers will implement this new knowledge in the classroom, will retain the information, or that training will ultimately contribute to improving student learning. In Jordan, teachers faced many barriers to high-quality implementation of the FEP curricula and interactive pedagogy. While not all of these barriers could have been addressed through training and support, FEP teachers would have benefited from higher quality training opportunities that included not just theoretical instruction, but also modeling, hands-on practice, and the provision of ongoing support to reinforce the implementation of new skills. Further, it would have been valuable to assess not just teacher retention of the curriculum at the end of training or teacher satisfaction with training, but also implementation of the new information and practices and the impact of these changes on student learning. Beyond the example of the FEP, this approach to assessing teacher training is unfortunately uncommon, so it is frequently unclear if training is ultimately having the intended effects on student learning outcomes.

Beyond the specifics of recruitment, training, supervision, and support within an initiative or program, teacher and classroom conditions more broadly also influence implementation, scaling, and sustainability. Though many of these realities are beyond the direct control of implementers, these conditions still must be assessed, and plans made to adapt the program and/or undertake advocacy efforts to mitigate or address them within a scaling process. Pilot testing in real environments—not ideal conditions—can help support this process.



Data, adaptation, and learning

Incorporating iterative cycles of testing, feedback, data analysis, and adaptation into a scaling process is easier when they are included as a key step in an implementation plan, as was the case for the FEP curriculum and teacher materials. This helps ensure stakeholders are on the same page and prepared for the associated capacity, timeline, and resources required.

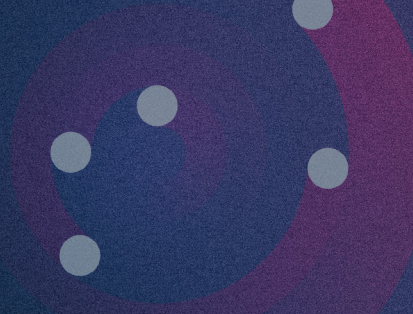
Significant shifts in the enabling environment, such as the COVID-19 pandemic, can serve both as an accelerator and a barrier to adaptation during the scaling process. In the case of the FEP, COVID-19 made digitization a top priority, bringing additional political will and freeing up resources to test adaptations. The pandemic also deprioritized other issues and destabilized the enabling environment, requiring INJAZ to constantly adjust plans as the situation shifted and policies changed. While largely unprecedented in scale and scope, "COVID-19 is not the first nor the last disruption to education; it may not always be a pandemic, but events and crises, such as teachers' strikes, environmental damage, and conflict, do occur [and] sustainable scaling

must take these realities into account and be prepared to respond and adapt."¹³²

Scaling requires a tailored and rigorous MEL plan that collects and uses relevant, timely data and assesses progress along multiple dimensions of the process. This includes examining how a program is being adapted to different contexts and how that impacts quality, equity, and costs; the process of institutionalization; support and opposition; factors in the environment that affect scaling; and institutional and organizational constraints and capacity limits. The example of the FEP underscores that while a robust MEL strategy requires additional capacity and resources, moving forward without one risks the impact and sustainability of the program and limits implementers' ability to understand where challenges are arising and respond in a data-driven way. In partnership with colleagues from several scaling labs, CUE has developed some resources to support this type of data-driven planning and adaptation, including an "Adaptation Tracker"¹³³ and "Institutionalization Tracker."¹³⁴

There are benefits to a participatory, continuous learning process supporting scaling, such as the RTSL. As seen for the FEP, this type of action research approach can help bring together diverse perspectives to contribute to scaling, encourage a stronger focus on data-driven adaptation, and support ongoing documentation and analysis of lessons learned. Where possible, it may be advantageous to integrate this type of approach into government institutions or existing structures to ensure that work is not duplicating or being done separately from existing processes and that learning feeds into decisionmaking. For FEP moving forward, it might be worth integrating RTSL activities into the work of one of the existing governance and coordination bodies to streamline stakeholder engagement.

Conclusion



The scaling field knows that about 90 percent of innovations attempting to scale will not do so¹³⁵ and those that do successfully scale require a multitude of moving parts, the tireless devotion of many, and a little bit of luck along with the readiness to seize windows of opportunity. The FEP scaling journey contained all these factors. It is impressive to witness, eight years later, that the program is still growing and improving and is set to be fully handed over to the MoE at the end of 2022. This report has attempted to account for this success while at the same time identifying and analyzing the challenges inherent in this kind of work.

The FEP scaling journey benefitted from numerous factors, including a favorable political environment nationally and internationally; a cadre of high-level champions; an innovative public-private partnership model; stable, long-term, and flexible domestic financing; a plan for scale from the start and sufficient time and space for implementation, testing, adaptation, and iteration of the curriculum content and materials with feedback from diverse stakeholders; and an RTSL supporting documentation, data collection, and scaling processes.

However, like all scaling efforts, the FEP also faced some challenges and roadblocks. Implementing, scaling, and sustaining a new, innovative curriculum is incredibly challenging, even more challenging than reforming elements of an existing curriculum. In the case of the FEP, challenges arose in particu-

lar with an overemphasis on the content and material elements of FEP, and less attention initially to issues related to collecting and using rigorous data on student outcomes and the scaling process, and ensuring teacher and student engagement and buy-in. Other challenges arose with the turnover of government champions, out-of-subject teachers, capacity limitations, and an ongoing global pandemic that shuttered schools and forced rapid digitization of learning opportunities. The case offers important lessons on pioneering a new multistakeholder partnership model with government ministries, the private sector, and NGOs, which can be used to support other reforms and innovations in Jordan; on the importance of funding ongoing MEL, and research efforts throughout a scaling process; and on the centrality of supporting and empowering teachers. It is notable that to date, the primary policy supports for scaling FEP have come from the financial sector. Looking ahead, it may be useful to also tie the FEP to priority MoE reforms, to help maintain momentum and ensure financial literacy remains an education priority.

While this case study presents a story specific to the FEP, the Jordanian context, and this moment in time, hopefully readers inside and outside Jordan can learn important lessons about how promising education innovations can be designed, developed, piloted, continually adjusted, expanded, and ultimately supported by whole populations of stakeholders, in order to improve access to quality learning opportunities for all children and youth.

Annex I

Methodology

This study was developed using a participatory, action research approach in which qualitative and quantitative data was collected, collaboratively analyzed, and fed back into the work being studied. In this way (and unlike a lot of traditional research), the study informed practitioner learning and implementation course corrections in real-time. Simultaneously, this approach captured key insights and transferable lessons to share across the Real-time Scaling Labs and beyond the RTSL community. The approach was based on practice-oriented research design and a systematic but flexible methodology aimed to improve education practice through collaborative, iterative data collection, analysis, dissemination, and uptake

among researchers and practitioners in actual settings.¹³⁶

The RTSL approach was developed and informed by the findings of the first phase of Millions Learning,¹³⁷ as well as seminal scaling literature,¹³⁸ collective impact, innovation hubs, adaptive learning mechanisms, and a wide range of related methodologies and frameworks such as improvement science, systems thinking, and change management. For more information, see “Real-time Scaling Lab Guidelines: Implementing a participatory, adaptive learning approach to scaling.”¹³⁹

Through the RTSLs, CUE seeks to address the following two primary research questions:

How do key drivers contribute to the scaling process and how are key constraints mitigated or overcome? More specifically, what works and does not work, for whom, under what conditions, in what contexts, why, and how?

- How does the role of the “originating” entity evolve over the course of scaling and what role do incentives play?
- Where government capacity for institutionalization is insufficient, how are these gaps addressed?
- How is output, outcome, and/or effectiveness data collected, analyzed, disaggregated, and used to inform decisionmaking about implementation, adaptation, and scaling in real-time and what are the primary barriers and facilitating factors?
- How is cost data collected, analyzed, disaggregated, and used to inform scaling decisions and what are the primary barriers and facilitating factors?
- How does adaptation happen in real-time given funding, timeline, capacity, and institutional constraints?
- How are educators effectively engaged in the scaling process, including teachers and heads of schools?

- How are leaders and champions cultivated and sustained at different levels of the system in support of scaling? How are oppositional forces mitigated or reduced?
- How are initiatives resourced in the middle and long term (financially and in-kind) and what is the process/strategy for securing these resources?

How can the link between gathering evidence around scaling and putting this knowledge into practice be strengthened?

- How is adaptive capacity fostered among key decisionmakers and institutions?
- How has the scaling lab process contributed to each intervention’s progress toward scale and what are the essential components of an adaptive learning mechanism that can help to scale education interventions?
- What type of tools or support do decisionmakers need to scale effective education interventions beyond evidence alone, from whom, and in what format?

To answer these questions, this study undertook two strands of research: 1) learning more about **how** scaling happens, and in particular, testing assumptions that underlie key scaling drivers identified in CUE’s and others’ previous research and developing new theories as needed; and 2) learning more about how to support the **process** of scaling in education and investigating the role that a continuous learning approach with intermediary organiza-

tions might play. While much evidence exists already about **what** key scaling drivers are, more evidence and guidance are needed on how scaling takes place and how previously identified drivers play a role, particularly in education. For this case study in particular, CUE specifically examined (1) FEP’s scaling journey, (2) scaling constraints faced and addressed during the process, and (3) if and how the RTSL contributed to the scaling process.

RTSL Case Studies

The study is part of a comparative case study approach, with each RTSL serving as an individual case and each employing a shared approach to data collection, analysis, and reporting. Flexibility was embedded in the approach to allow for the emergence of unanticipated aspects. As Yin¹⁴⁰ detailed, “in general, case studies are the preferred method when (a) “how” or “why” questions are being posed, (b) the investigator has little control over the events, and (c) the focus is on a contemporary phenomenon within a real-life context.” He fur-

ther underscored that the need for case studies “arises out of the desire to understand complex social phenomena”— such as the process of scaling in education— where the individual context is highly relevant. In line with these criteria, the RTSL case studies seek to answer “how” and “why” questions around scaling in education—focused on scaling processes that are taking place contemporaneous to the study—that are highly dependent on local context, with a significant number of variables, and in which many variables are beyond the study’s control.

Criteria for selecting the cases included:

1. demand (a committed local partner with aligned interests and capacity to engage);
2. evidence of effectiveness of the initiative being scaled;
3. strategic timing (where there was a reform process underway or another catalyst to leverage);
4. political will and buy-in from government partners; and
5. a critical education issue facing many countries to be addressed.¹⁴¹

Additionally, the RTSL project deliberately sought to include diversity across cases, including geographic location, fragile and crisis-affected contexts, type of education intervention and target beneficiaries, phase in the scaling process, and scaling pathway pursued. The rationale for this stratified selection process was to allow for in-depth investigation of how key scaling drivers operate across different contexts, at different stages of scaling, and when scaling different types of initiatives. At the same time, this stratification strategy also allowed for testing one of the study's assumptions—that despite differences in context, interventions in the process of scaling often face common challenges and opportunities and would benefit from knowledge exchange with other efforts.

Data collected by CUE and scaling lab researchers from each lab through primary and secondary means. For the primary research, CUE developed a set of tools to document the lab participants' scaling journey, the role of key scaling drivers in scaling impact, and the progression of the RTSL itself. These included interview guides, scaling checklists, convening evaluation surveys, quarterly lab report worksheets, and templates for developing in-depth research briefs on specific "drivers." Secondary, contextual data is collected on each scaling case (including information on the education conditions in each country and existing research on the particular intervention being scaled).

To analyze the data, CUE employs a conceptual framework for scaling in education developed from a review of the scaling literature and further refined by the Millions Learning project (itself a review of existing research on scaling plus fourteen in-depth case studies). The Millions Learning framework includes 14 core ingredients (or key scaling drivers) that, in different combinations depending on context, contribute to the scaling of effective innovations and practices that improve learning. These core ingredients are elements found to be essential for designing, delivering, financing, and fostering an environment that enables sustainable scaling of proven quality education. For a more detailed discussion of the individual scaling drivers, see "Millions Learning: Scaling Up Quality Education in Developing Countries."¹⁴² Additionally, the conceptual framework also utilized research on systems frameworks—most specifically, the notion of "leverage points" (pioneered by Donella Meadows)¹⁴³ to identify small but powerful intervention levers in a system in which a small shift in one element produces exponentially larger changes in the system.

For this report, data were first organized into the four broad categories defined in the Millions Learning framework: 1) design, 2) delivery, 3) finance, and 4) an enabling environment for sustainable scale. Within each category, data were then coded in sub-categories by individual driver or issue—drawing from the original list of 14 core drivers while also seeking to identify additional drivers, levers, or themes not included in the original framework. From this coding, CUE identified an initial list of themes and topics emerging as relevant or interesting. CUE then worked to refine and flesh out these themes and topics and develop an initial set of findings through further consideration of the coded data and triangulation of information through additional interviews and discussions with key stakeholders. To identify areas of convergence and divergence—as well as possible alternative explanations of findings—CUE cross-referenced its findings with the existing science

of scaling literature, as well as compared the results of this case study with experiences in other Real-time Scaling Labs. Through several rounds of further investigation, consultation of data, and analysis, CUE continued to refine its analysis.

Findings were shared with peer reviewers before finalization. The report was also reviewed by key stakeholders in Jordan, including RTSL manager and researcher, as well as representatives from the CBJ, the National Curriculum Development Center, and INJAZ. The RTSL members also reviewed and provided feedback on the report considerations.

There are limitations to a case study-based approach, including the inability to demonstrate causation or make broad generaliza-

tions and the risks of subjectivity of informants. Selection bias might also exist whereby the selection criteria employed may have resulted in a sample of cases more likely to successfully scale than the average education initiative, which may limit the transferability of conclusions. Further, CUE recognizes that playing an active role as an intermediary in supporting scaling in each case has the potential to introduce bias into the analysis. In particular, there is risk that the role of Brookings— a well-known think tank— influenced the scaling process and role of key drivers during the RTSL process in a manner that would not hold true without its involvement. By outlining these limitations, CUE aims to ensure transparency with the reader. In addition, CUE has employed strategies to reduce subjectivity and biases.¹⁴⁴

Annex II

Real-time Scaling Lab members

Scaling Lab Manager: **Dr. Murad Awad**, Director of Research & Development, INJAZ

Scaling Lab Researchers: **Ghida Hamed**, Research & Development and International Relations Manager, INJAZ (2020-2022); **Ghaith Al-Shokairi**, Research & Development, INJAZ (2019-2020); **Farah Abu-Safe**, Research & Development, INJAZ (2020).

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Maha Al Abdallat, Supervisor Microfinance Companies and Credit Bureaus Department, Central Bank of Jordan*

Jihan Areifej, FEP Subject Coordinator, Ministry of Education

Nawwaf Ajramah, Secretary General, Ministry of Education

Amr Ahmed, Head of Financial Inclusion Unit, Central Bank of Jordan, & Coordinator, National Financial Inclusion Strategy*

Mohammad Amaireh, Executive Director of Financial Stability Department, Central Bank of Jordan

Prof. Dr. Adnan Badran, President of Board, National Center for Curricula Development*

Maha Bahou, CEO, Jordan Payments & Clearing Company (JOPACC)*

Dr. Nilly Al Banna, Assistant Professor, Teacher Education Program, Petra University

Prof. Ruba Bataineh, Former Executive Director for the National Center of Curricula Development

Mohammad Al Dweik, Head of Digital Financial Services and Innovation Unit, National Financial Inclusion Strategy, Central Bank of Jordan

HE Eng. Muthanna Al-Ghurabiya, former Minister of Digital Economy and Entrepreneurship

Dr. Sheren Hamed, Executive Director, National Center for Curricula Development

Dr. Riyad Al Hindawi, Director, Institute of Banking and Financial Studies

Valentina Kassisieh, CEO, Abdul Hameed Shoman Foundation

Dr. Yara Katami, Director of Small and Medium Enterprises, Director of Nashmiyat Business Center,, Jordan Ahli Bank

Dr. Wafa Al Khadra, Dean of College of Languages & Communication, American University of Madaba

Dr. Osama Jaradat, Head of Arabic Language Department, Curriculum and Textbook Department, Ministry of Education

HE Ms. Hala Lattouf, Former Minister of Social Development

HE Prof. Azmi Mahafzah, President, National Center for Curricula Development

Dr. Maher Al Mahrouq, Director General of the Association of Banks in Jordan, National Technical Committee for Financial Education (FETC)

Dr. Ala'a Al Makhzoumy, Assistant Dean of the College of Education, Department of Curriculum and Instruction, Yarmouk University.

Dr. Hana Malhas, Founder and Director, Al Mashreq International Schools

Ra'ed Mdanat, Director of Youth, Technology and Employment, Ministry of Digital Economy and Entrepreneurship

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Annex III

Full list of Millions Learning International Advisory Group members (2017–2019 and 2019–2021)

Chair (2017-2019): Hon. Julia Gillard, 27th Prime Minister of Australia, former Chair of the Board, Global Partnership for Education, and Distinguished Fellow, Center for Universal Education, The Brookings Institution

Chair (2019-2021): Jaime Saavedra, Global Director, Education Global Practice, World Bank, Former Minister of Education, Government of Peru

Modupe Adefeso-Olateju, Managing Director, The Education Partnership Centre (TEP Centre)

Manos Antoninis, Director, Global Education Monitoring Report

Luis Benveniste, Human Development Regional Director, Latin America and Caribbean, World Bank

Theresa Betancourt, Salem Professor in Global Practice, Boston College School of Social Work, Director, Research Program on Children and Adversity

Larry Cooley, Senior Advisor and President Emeritus, Management Systems International, Nonresident Senior Fellow, Brookings Institution

Claudia Costin, Director, Center for Excellence and Innovation in Education Policies (CEIPE), Getulio Vargas Foundation

Luis Crouch, Senior Economist, International Development Group, RTI International

John Floretta, Global Deputy Executive Director, Director of Policy and Communications, The Abdul Latif Jameel Poverty Action Lab (J-PAL)

Laura Ghiron, Vice President, Partners in Expanding Health Quality and Access

Yaneth Giha Tovar, Executive President, Association of Pharmaceutical Laboratories for Research and Development (AFIDRO); Former Minister of Education, Government of Colombia

Javier Gonzalez, Director, SUMMA, Affiliate Professor, Center of Development Studies, University of Cambridge

Sanni Grahn-Laasonen, Member of Parliament, Former Minister of Education, Finland

Afzal Habib, Cofounder and Chief Imagination Officer, Kidogo

Rachel Hinton, Senior Education Advisor, UK Foreign Commonwealth and Development Office

Maysa Jalbout, Founding CEO, Abdulla Al Ghurair Foundation for Education, Nonresident Fellow, Brookings Institution

Cassandra Kelly, Founder and Senior Advisor, Pottinger; Founder, C-Change

Shiv Khemka, Vice Chairman, SUN Group; Chairman, The Global Education and Leadership Foundation (tGELF)

- Homi Kharas**, Senior Fellow, Global Economy and Development, Brookings Institution
- Lord Jim Knight**, Director, Suklaa Education
- Wendy Kopp**, Chief Executive Officer and Co-Founder, Teach For All
- Lucy Lake**, Chief Executive Officer, Camfed International
- Ruth Levine**, Chief Executive Officer, Partner, IDinsight
- Johannes Linn**, Nonresident Senior Fellow, Brookings Institution; Distinguished Resident Scholar, Emerging Markets Forum, Senior Advisor, Results for Development Institute
- Tamar Manuelyan Atinc**, Nonresident Senior Fellow, Center for Universal Education, Brookings Institution
- Nadim Matta**, President and Founding Board Member, Rapid Results Institute
- Joe McCannon**, Co-Founder, Shared Nation; Co-founder and Faculty, The Billions Institute
- Kristen Molyneaux**, Vice President, Social Impact, Lever for Change
- Tamela Noboa**, Managing Director, Impact(Ed) International (formerly Discovery Learning Alliance)
- Darius Ogutu**, Director of University Education, Ministry of Education, Kenya
- Lant Pritchett**, RISE Research Director, Blavatnik School of Government, University of Oxford
- Ramanathan Ramanan**, Senior Vice President, Tata Consultancy Services; First Mission Director, Atal Innovation Mission, Niti Aayog
- Nathan Richardson**, Executive Vice President, Red Ventures
- Sara Ruto**, Chief Administrative Secretary, Ministry of Education
- Asif Saleh**, Executive Director, BRAC
- Gus Schmedlen**, President and Chief Revenue Officer, Merlyn Mind
- Philipp Schmidt**, Director of Digital Learning Collaboration, MIT Media Lab
- Liesbet Steer**, Director, International Commission on Financing Global Education Opportunity
- Kedrace Turyagyenda**, Director, Directorate of Education Standards, Ministry of Education and Sports, Uganda
- Justin van Fleet**, President, Theirworld; Executive Director, Global Business Coalition for Education
- Emiliana Vegas**, Co-Director and Senior Fellow, Center for Universal Education, Brookings Institution
- Rebecca Winthrop**, Co-Director and Senior Fellow, Center for Universal Education, Brookings Institution
- Eliya Zulu**, Executive Director, African Institute for Development Policy (AFIDEP)
- Alix Zwane**, Chief Executive Officer, Global Innovation Fund

End Notes



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