Scholars
Program
mastercard
foundation

June 2021 Scholars Entrepreneurship Fund

Insights from the
Digital Diaries Report

According to UNICEF, only 51 percent of children under the age

A new innovation to reduce child pneumonia deaths in Zimbabwe

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Pius Sawa Murefu Correspondent

"I don't feel like I'm working, I feel like I'm living"

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Cover quote: Dee

Photos (*L-R top*): Suly, Takunda, Eva, Izzy, Destiny (*L-R bottom*): Echo.Mike, Victoria, Suly, Elina

Executive summary

> "Entrepreneurship has been a really great journey for me."
>
> Victoria

The Scholars Entrepreneurship Fund (SEF) was launched in 2018 by the Mastercard Foundation Scholars Program to help incubate Scholar- and alumni-led social enterprises. The SEF was also intended to support post-graduation transitions to work, provide a platform for giving back to communities, and offer an experiential learning opportunity for applying transformative leadership skills and mindsets. The SEF was implemented by Mastercard Foundation Scholars Program partners, primarily universities, and each partner designed the SEF with its own unique features.

The SEF Digital Diaries were a qualitative study building on monthly — primarily quantitative — monitoring surveys with recipients of SEF funding. The findings presented here offer an in-depth look at the entrepreneurial journeys of 15 young women and men from across Africa over a two-week period in late 2020, during the COVID-19 pandemic.

The young women and men participating in the Digital Diaries were at different stages of entrepreneurship: some had established businesses in the past and were running active ventures while others were new entrepreneurs refining their first business plans. Their ventures were in eight different countries in Africa, though eight of the 15 participants were managing their ventures remotely, from both within and outside of Africa.

The meaning of entrepreneurship

Participants were asked open-ended questions about the types of activities entrepreneurs engage in, their advice to other entrepreneurs, the kinds of leadership qualities they brought to their ventures, and whether their work was dignified and fulfilling. Their responses show that they identified very strongly with the values of hard work and persistence and saw themselves as "servant leaders," though they also identified with the skills and mindsets associated with transformative leadership. Participants also shared that their work as entrepreneurs was dignified and fulfilling, largely because they were contributing to their communities.

Social enterprises, designed for impact

Through the lens of the Mastercard Foundation "ripples of impact" model, it is clear these young entrepreneurs and their ventures were already having an impact on their own lives, their families and communities, and on systems and structures. For instance, they were contributing to household finances, employing family and community members, and offering services and training aimed at community needs. At the level of systems, they were also creating new knowledge, advocating on major issues, and pivoting and scaling up their services to address hardship caused by COVID-19. Their experiences were also having an impact on their own lives, as shown through their descriptions of their personal and professional growth as entrepreneurs.

Navigating entrepreneurship pathways with resilience

The young entrepreneurs profiled here were able to navigate entrepreneurial challenges, build their businesses, and show their resilience by leveraging different forms of capital — human, financial, social, and physical. They had an abundance of human capital, best demonstrated through their ability to "learn by doing," but experienced challenges accessing financial and physical capital. While they were

very successful at accessing social capital through their strong relationships with their families and communities, they experienced challenges connecting with professional networks and information (i.e., they were only able to make weak ties). Individuals managing their businesses remotely found it especially challenging to build these kinds of professional relationships. The four forms of capital were all necessary for managing risk and navigating the sometimes-challenging, particularly for women, entrepreneurship ecosystems participants were operating in. The capitals also came together in their experiences of COVID-19, which has demanded extraordinary resilience.

Reflections on SEF and looking to the future

Participants were very positive about their SEF experiences. Though SEF was implemented quite differently across institutions, participants were consistent in valuing the financial boost it provided, wraparound supports (like mentorship and entrepreneurship training), and the program's emphasis on social entrepreneurship. When asked what they need to take their businesses to the next stage, or what was missing, they were interested in accelerator programs, connections with networks (especially peer networks with other young entrepreneurs), and additional funding opportunities.

Together, these findings suggest important areas for reflection (see "Thirteen things we learned from Diaries participants"). Perhaps the strongest finding is how thoughtful, self-aware, and strategic these women and men are. They were also forthright and generous in describing their activities, successes and failures, and their understandings of entrepreneurship, as well as expectations for their ventures and for their own futures.

Thirteen things we learned from Diaries participants

1 ▸ Young entrepreneurs have vision

They had no trouble dreaming big, but their ambitions were realistic and grounded in a sound understanding of their national and regional contexts and of their sectors. Their vision has already led to positive change for their families and communities, and it will lead them to make an impact on the societies and systems they are operating in.

> **Takeaway:** Young people are ready to innovate, adapt, and build. They are full of ideas and just need support to turn them into reality.

2 ▸ They have a good understanding of entrepreneurship …

When explaining the characteristics of entrepreneurs, the Diaries participants showed a sophisticated understanding of entrepreneurship. They were very positive about entrepreneurship, seeing it as dignified and fulfilling, though they may have been somewhat idealistic about the "entrepreneur" archetype.

> **Takeaway:** Entrepreneurship seems connected to these young people's own values. The wraparound supports provided appear to be readying them for their ventures.

3 …And understand their businesses and what they need.

Participants were knowledgeable and informed about their businesses and sectors. They were very aware of the contexts they were operating in and realistic about how they could move forward. Nevertheless, their greatest challenges were around leveraging resources to get there.

> **Takeaway:** For this group, business acceleration programs would be an important asset to get their businesses to the next stage.

4 They are managing many responsibilities at once.

Most participants were combining entrepreneurship with their studies. This made time management and prioritization a challenge.

> **Takeaway:** Opportunities to integrate entrepreneurship training with degree programs may alleviate some of this stress.

5 They would rather grow slowly and organically than take on extra risk.

Though they believed in risk-taking and demonstrated growth mindsets, this low risk tolerance seems very rational given their limited access to financial resources and networks beyond their close family and friends.

> **Takeaway:** Young entrepreneurs would benefit from safety nets or opportunities to "fail fast" in a lower risk setting.

6 | Their knowledge, skills, and mindset are their greatest resource.

In building their businesses and responding to crises — particularly COVID-19 — young entrepreneurs showed their remarkable resilience was grounded in their own skills, knowledge, and mindsets (i.e., their human capital). Though they were very positive, there is some evidence of feelings of isolation, worry, and heightened stress because of COVID-19.

> **Takeaway:** The development of human capital through continuing professional development and supports aimed at wellbeing and mental health are important for building resilience and long-term success as an entrepreneur.

7 | Interventions and supports are needed to boost their access to social capital...

The young entrepreneurs profiled here relied on close, personal relationships to support their ventures. But who they knew mattered and they did not have the social connections needed to build their businesses. This was especially true for women, who dealt with both gender and age-based discrimination.

> **Takeaway:** Young entrepreneurs are looking for opportunities to build peer networks, connect with entrepreneurs working on similar projects, and be matched with individuals who have skillsets they need.

8 ...And to help navigate complex entrepreneurship ecosystems.

While they were very proactive about searching for opportunities, entrepreneurs found it challenging to access and understand the range of financing options and entrepreneurship programs available to them.

Takeaway: Tools to help young people navigate the landscape of funding opportunities and venture competitions would be an asset.

9 Finding the right mentors and experts for young people is key.

Participants were hungry for mentorship and expertise. Several had excellent mentors, but others were challenged by sectoral or regional mismatches with their mentors. Ultimately, they saw the need for multiple mentorship or network relationships — to connect them to needed resources — but also for safe, trustworthy, 0061nd experienced leaders who could offer sound advice.

Takeaway: Mentorship is one of the most valuable supports for young entrepreneurs, but mentor matching should be intentional.

10 Women are experiencing additional barriers to entrepreneurship.

Women are participating in SEF at a much lower rate than men, especially as team leaders. The women in the Diaries also faced additional barriers because of sexism, including the intersecting barrier of ageism.

Takeaway: Entrepreneurship programming is an opportunity to encourage and support young women who may be reluctant to take on the risk of entrepreneurship or may feel less qualified or less experienced.

11 — Young entrepreneurs establishing businesses in other countries also have unique needs.

Though universities far from their homes may have world-leading entrepreneurship programs, entrepreneurs found the challenge of connecting to their home networks and mobilizing social capital more difficult from a distance. Even the logistics of transferring funds and communicating with teams were major barriers for this group.

> **Takeaway:** Programs for international students (including programs based in Africa) who are managing businesses in their home countries would benefit from strong connections to African-based or other regional networks and partners.

12 — Give-back is important, but so is sustainability.

No entrepreneur profiled here appeared to be exclusively motivated by financial gain, and all participants were very focused on their responsibility to their families, communities, and society. It is unclear the extent to which SEF's emphasis on social entrepreneurship pushed participants to frame their businesses this way. Nevertheless, there is some tension between the need to do social good and the imperative of profitability.

> **Takeaway:** Entrepreneurship funds should ensure funded projects have the potential for sustainability.

13 We have more to learn from young entrepreneurs.

This study shows many areas for further learning about the experiences of young entrepreneurs in Africa and the value of university-based entrepreneurship programs. For instance, we do not yet know enough about how the different universities implemented their SEF programs, though the diversity of programming is clear from these young entrepreneurs' experiences.

Takeaway: Entrepreneurship programs are an exciting area for monitoring, evaluation, and research. There is value in adopting approaches to data collection that centre the experiences of young people and engage them through participatory practices.

Introduction: Scholars Entrepreneurship Fund

"You have to first love what you do."

Suly

The Scholars Entrepreneurship Fund (SEF) was launched in 2018 by the Mastercard Foundation Scholars Program to help incubate Scholar- and alumni-led social enterprises. The SEF was also intended to support post-graduation transitions to work, provide a platform for giving back to communities, and offer an experiential learning opportunity for applying transformative leadership skills and mindsets. The SEF was implemented by Mastercard Foundation Scholars Program partners, primarily universities, and each had its own unique features.

SEF participants took part in monthly surveys aimed at better understanding their experiences. Building on this quantitative monitoring, the SEF Digital Diaries engaged a group of 15 participants in a two-week qualitative study. The Diaries were designed to address topics such as the experiences of first-time entrepreneurs, the experiences of women entrepreneurs, entrepreneurship programs as experiential learning activities, resilience during COVID-19, and the impact of social enterprises. This study was also an opportunity to reflect on the meaning and experience of entrepreneurship for young people, and how to adapt entrepreneurship programs to their evolving needs.

Methodology in brief

The SEF Digital Diaries were a two-week qualitative study building on insights from monthly quantitative monitoring of program participants.

The diary methodology (see Appendix 1 for complete methodology) allowed participants to self-report their behaviours, frustrations, opinions, desires, and aspirations at defined intervals or in response to prompts or tasks. Questions were open-ended and participants shared their responses through text, pictures, and video. Questions focused on topics emerging from the monthly monitoring surveys including motivations, barriers and enablers, leadership development, and the effects of COVID-19 (see Appendices 3-7 for complete lists of questions and instruments). The virtual format was necessitated by the global COVID-19 pandemic, but also allowed participants considerable flexibility.

The 15 participants were "blind" recruited from the sample of participants in the monthly surveys. The sample was purposive and oversampled for women and first-time entrepreneurs, to align with priority learning questions. The Diaries took place over two weeks (Nov. 23, 2020–Dec. 7, 2020) and included 14 mandatory questions and one optional final question. They were followed by six small virtual one-hour focus groups with participants.

Participants selected their own pseudonyms for this study and effort was taken to remove identifiable information. All participants were invited to review a draft version of this report and five shared their feedback.

At the time of the Diaries, the 15 young people were at very different stages of their entrepreneurial journeys — some were already "serial" entrepreneurs while others were exploring entrepreneurship for the first time — and represent diverse personal histories and venture types located in different entrepreneurship ecosystems. Through these Digital Diaries, SEF participants have shown themselves to be socially minded, resilient leaders with very nuanced insights about the challenges and opportunities of entrepreneurship and the kinds of supports they need to build their businesses.

Together, their stories demonstrate the meaning of entrepreneurship in their lives, their visions for entrepreneurial impact, and the personal and social capacities young entrepreneurs in Africa leverage to build their ventures and be resilient in crises. Their stories also point to some critical considerations in designing entrepreneurship programs for young people in the African context and globally.

About the Scholars Entrepreneurship Fund (SEF)

The Scholars Entrepreneurship Fund (SEF) was launched in August 2018 by the Mastercard Foundation Scholars Program. The Fund set out to expand Scholars' capacity to exercise transformative leadership and give-back, by catalyzing economic opportunities for others. A major goal was providing an experiential learning opportunity for young people to exercise transformative leadership. A related objective was to facilitate Scholars' post-graduation transitions to work.

SEF has been implemented by most tertiary-level Mastercard Foundation Scholars Program Implementing Partners. Each institution took a unique approach to implementing SEF competitions. They differed in their selection criteria and processes and in the kinds of wraparound entrepreneurship supports they were able to offer finalists. For instance, some programs included entrepreneurship training and mentorship, while others provided just the grant funding. This variation also meant that each program was at a different stage during the study period, with some programs just launching and others near completion.

Both current Scholars and Scholars Program alumni were eligible to take part and Implementing Partners all used competitive selection processes. No restrictions were placed on the types of ventures eligible for funding, beyond identifying a broad social impact for the venture. To date, over 300 ventures have been funded through SEF, operating in 29 countries. The average funding amount awarded through SEF was $4,748USD, though grants ranged from $250 to $20,000 USD.

About the Mastercard Foundation Scholars Program

The Mastercard Foundation Scholars Program is developing Africa's next generation of leaders. The program allows students whose talent and promise exceed their financial resources to complete their education. With a belief that education is a catalyst for social and economic change, the program focuses on developing leaders who are transformative, encouraging them to be active contributors in their communities.

The Program provides financial, social, and academic support to Scholars. Financial support includes, but is not limited to, tuition fees, accommodation, books, and other scholastic materials. The scope of majors and degrees eligible for the Mastercard Foundation Scholars Program varies from institution to institution.

Fifteen young African entrepreneurs

The 15 participants in the Digital Diaries were identified from a database of SEF winners who had participated in at least one monthly survey.[1] This is the most complete database of SEF winners, but excludes newer recipients and individuals who have not taken part in the survey (see Appendix 1 for complete description of

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[1] All but one of the participants was the team leader on the initial program application and the one exception to this — Nanah — was the venture CEO and running it full-time. Two SEF winners were included in the Diaries sample who were not part of the monitoring work to ensure representation of newer recipients.

recruitment and inclusion criteria). While effort was taken to ensure regional, institutional, and sectoral representation, women and first-time entrepreneurs were oversampled to explore learning questions around their unique experiences (see Figure 1). In total, 10 of the 15 participants were women, four were alumni while 11 were current students,[2] and six were first-time entrepreneurs (see Figures 2 & 3 and Appendix 2). As well as being less experienced and more likely to be female, Diaries participants appeared to be working on their ventures full-time at a higher rate (27 percent of participants) than the monthly survey population (10 percent).

All entrepreneurs profiled here have ventures based in Africa, in their countries-of-birth, representing eight different countries. Eight of the entrepreneurs were running their businesses from a different country, seven of these because they were currently attending universities away from their homes.[3] Because of lockdown measures and university closures, Echo.Mike was taking online courses from his home country and Suly had returned to her rural hometown to take online courses from her university. In total, 10 of the participants were managing ventures based in different countries than the universities they were receiving funding from. This is a higher rate than the overall population of winners — just 34 percent of monthly survey respondents were leading ventures remotely.

The ventures also fall into a few different categories, though all ventures had the aim of being sustainable. Two were not-for-profits (advancing STEM for women and girls, and an elementary school in an underserved area), and one was a medical device invention nearing commercialization (i.e., in research and development). The remaining 12 were all businesses, primarily in agriculture or technology, at different stages of development. Though they self-identified their venture stages differently (see Figure 2), during the Diaries, we observed that one

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[2] This excludes Destiny, who graduated at the end of the Diaries.
[3] Destiny did return to his home country and the location of his venture on the final day of the Diaries.

venture was in its very early phase, three were prototypes, and the rest were active, despite disruptions caused by COVID-19.

Figure 1: Participants respond to the question: "Tell us about yourself?"

Figure 2: This chart compares demographic data from the full population of SEF winners to the sample of Digital Diaries Participants

DIGITAL DIARIES PARTICIPANTS

33%
67%
■ Male ■ Female

53%
47%
■ Has experience ■ No experience

27%
73%
■ Alumni ■ Student

23% Idea Phase
61% Prototype Phase
15% Operational Phase

Type of Venture
- Agriculture — 33%
- App or Website — 20%
- Health — 13%
- Education — 13%
- Arts/Culture — 7%
- Environmental — 7%
- Community Development — 7%

Ventures are located in 8 countries

All SEF WINNERS

42%
58%
■ Male ■ Female

39%
61%
■ Has experience ■ No experience

75%
25%
■ Alumni ■ Student

35% Idea Phase
40% Prototype Phase
25% Operational Phase

Type of Venture
- Ag/food processing — 40%
- Production — 19%
- Education — 11%
- Creative venture — 8%
- App or website — 6%
- Health services — 4%
- Other — 12%

Ventures are located in 29 countries

* Does not show ventures in the Middle East (2) or Latin America (3)

Figure 2: Compares demographic characteristics such as gender, level of experience and status of the alumni, as well as venture characteristics including the phase of development, type of venture, and the country where the venture is located, between the sample of Digital Diaries participants, and the full population of SEF winners.

Comparing the sample and the population, we find:

A larger share of digital diaries participants are female (67 percent compared to 42 percent of all SEF winners).

- A smaller share of digital diaries participants are experienced entrepreneurs (53 percent compared to 61 percent of all SEF winners).

- A smaller share of the digital diaries' participants are current students (73 percent compared to 75 percent of all SEF winners).

When we look at the venture characteristics, we find:

- A larger share of digital diaries ventures are in the prototype phase (61 percent compared to 40 percent of all SEF winners), although a smaller share of digital diaries ventures are at the idea phase (23 percent compared to 35 percent of all SEF winners) and the operational phase (15 percent compared to 25 percent of all SEF winners).

- Agriculture is the most common sector for both digital diaries participants and all SEF winners.

- Digital diaries participants are operating ventures in eight countries (DRC, Ghana, Nigeria, Zambia, Malawi, Zimbabwe, Rwanda, and Kenya), a subset of the 29 countries where all SEF winners are operating.

Figure 3: Participant profiles by venture, country of study, and program stage

Queen Bee │ Participant 1

- Female undergraduate engineering student, studying in South Africa
- Venture is a waterless carwash in Kenya with the goal of addressing water security and environmental issues
- Project stage: planning & design

Debb │ Participant 2
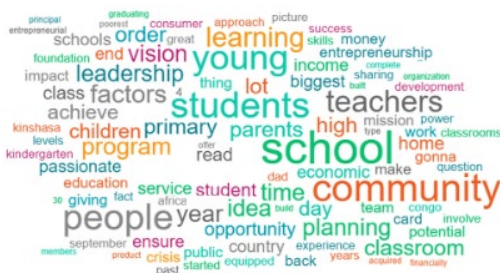
- Female alum of undergraduate program in business management in South Africa
- Venture is an elementary school in the Democratic Republic of Congo
- Project stage: actively teaching young people, identifying funding opportunities, and growing to include secondary-level training

Dee │ Participant 3

- Female Master's student in philosophy, studying in South Africa
- Venture is a corporate social responsibility (CSR) advisory service in Malawi
-
-

- Project stage: planning & design; encountering challenges with take-up by corporations in Malawi

Nanah │ Participant 4

- Male alum of undergraduate program in business administration in Ghana
- Venture is an online education platform for secondary students
- Project stage: venture is active and has expanded significantly during COVID-19; participant is working on project full-time

Ama │ Participant 5

- Female alum of undergraduate program, currently completing a Master's degree in engineering in Ghana
- Venture is a menstrual pad manufacturing company
- Project stage: successful prototype and significant press coverage; designing, manufacturing, and marketing a new product for the Ghanaian market while advocating for menstrual awareness; participant was awarded a Resolution Prize Fellowship for a previous project

Echo.Mike │ Participant 6

- Male Master's student studying biomedical sciences outside of Africa, but completing courses online in Zimbabwe due to lockdown measures

- Venture is a medical device company based on his invention of a low-cost pneumonia diagnosis system

- Project stage: prototype has been developed but project is on pause because necessary equipment to finish R&D is only available at the university; project was also awarded a Resolution Prize Fellowship

Elina │ Participant 7

- Female alum of undergraduate program in medical sciences in Ghana

- Venture is a hub for creating and selling artwork and training young artists

- Project stage: venture is active despite the disruptions to the art market caused by COVID-19

Izzy │ Participant 8

- Male undergraduate alum, currently a Master's student studying in Rwanda
- Venture produces and sells livestock feed to farmers in Nigeria
- Project stage: actively producing feed though demand has declined during COVID-19

Takunda │ Participant 9

- Male undergraduate student studying mechanical engineering in South Africa
- Venture focuses on precision agriculture in Zimbabwe using remote censors and data to optimize farm yields
- Project stage: venture is active, and the current crop is promising, despite weather-related challenges; more and more farmers are interested in experimenting with these techniques

Nicole │ Participant 10

- Female undergraduate student studying mathematics outside of Africa
- Venture is based in Zambia and aimed at inspiring young women to get involved in STEM
- Project stage: early planning phases; prior to receiving SEF funding, project

was also awarded a Resolution Prize Fellowship

Eva │ Participant 11

- Female undergraduate student in agricultural sciences and natural resources in Rwanda
- Venture aimed at producing honey for the local market
- Project stage: first cycle of honey production severely impacted by COVID-19 lockdowns and much of the honey was lost; but plans are in motion to ensure the upcoming honey production cycle is a success

Destiny │Participant 12

- Male undergraduate student studying agriculture outside of Africa; graduated from program during Diaries and returned to Zimbabwe
- Venture focuses on purchasing produce from local farmers and using solar dryers to prepare it for market
- Project stage: COVID-19 has been very disruptive to the supply chain and he has temporarily pivoted to applying precision agricultural methods to his family farm and focusing on building up his online precision agriculture learning platform

Victoria │ Participant 13

- Female alum of Master's program in public health living and working outside of Africa

- Venture is an online job-matching platform in Kenya focused on informal workers

- Project stage: COVID-19 and remote management have been major challenges for the business, but it is in active operation

Suly │ Participant 14

- Female undergraduate student studying computer and software engineering in Rwanda

- Venture focuses on producing mushrooms for market and producing mushroom flour

- Project stage: venture is very active and is larger than originally anticipated because university closures and the switch to online learning necessitated a return to her hometown, which allowed

- her to direct more energy towards her venture

Emerald │ Participant 15

- Female alum of Master's program in statistical climatology in Cameroon.

- Venture is a food delivery platform in partnership with local restaurants and grocery stores, originally based in Cameroon, but is now focused on Nigeria

- Project stage: currently developing the website and logos and developing partnerships with interested businesses

The meaning of entrepreneurship

"I have an open mind. Whatever comes, I'm willing to grow from it."

Destiny

Throughout the SEF Digital Diaries participants were asked about the qualities, behaviours, and mindsets of successful entrepreneurs and the leadership characteristics entrepreneurs need. They also shared examples of themselves being entrepreneurs, advice for other young and first-time entrepreneurs, and examples of their leadership role models. Together, their responses offer insight into what entrepreneurship means to these young people. Responses also show the diversity of entrepreneurial activities young people engage in, their collaborative, learning-centred approaches to leading ventures, their perception of entrepreneurship as "dignified and fulfilling

work," and the multifaceted ways they see entrepreneurship fitting into their career paths.

What does entrepreneurship look like?

All participants were asked to share examples of themselves working on their ventures and "being" an entrepreneur. They shared an extraordinary range of images and insights into their day-to-day work (see Figure 4 for word cloud of their photo captions). Given the COVID-19 context, most participants were working on their businesses remotely and shared photos reflecting that, though several were able to share images from their work prior to lockdown. The main themes across the images in Figure 5 were hard work, passion, and their commitment to learning-by-doing (see also "Navigating entrepreneurship pathways with resilience" below). The images and captions show the diversity of their projects, interests, hes, and perspectives towards their work.

Figure 4: Participants respond to the question: "What does an entrepreneur look like?"

Women

Men

Figure 5: Participants respond to the question: "Send us a picture of you working on your venture and being an entrepreneur."

Applying innovative technologies
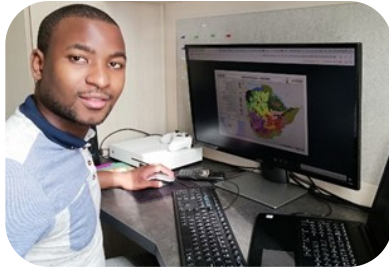
"In this photo I was doing data analysis by looking at the forecasted temperature, rainfall, wind patterns, sunlight received, disease spread and marketplace accessibility …I chose this photo because being at school here in South Africa, I'm unable to go on a visit to the fields (which are in Zimbabwe) to take more pictures. I'll have to wait until holiday."

Takunda

Inspiring teams & building community

"I choose this picture because this really shows my adventure as an entrepreneur. In this picture, I am sharing my vision, mission, and values to my potential team members since I could not make [Name] School a reality on my own. The objective was to get the understanding, buy-in, and the enthusiasm of my team to work together collectively to take the project forward."

Debb

Inventing and prototyping a new technology
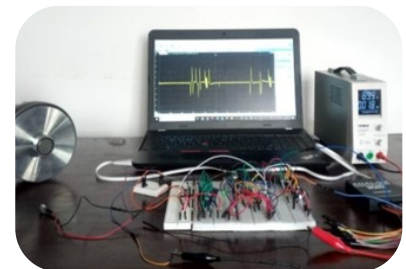
"This picture shows the electrical setup of the biomedical prototype device. The circuit looks bulky but it can be simplified into a small object. The reason for being bulky is that I was using the cheapest material components available."

Echo.Mike

Pitching and finding new opportunities

"I participated in a shark-tankesque entrepreneurship competition to raise funds for my business. The competition was a 'winner takes all' event with an approximate $2,500 grand prize. I emerged second position and had access to the network's mentorship program for 1 month."

Izzy

Promoting their work & networking

"An entrepreneur knows how to network and easily connect with people; a sure way of being visible, getting noticed, accessing partnership opportunities, gaining referrals and learning from like-minded people. In this photo, I was interacting with some potential clients who came by my stand during the just-ended exhibition at Tamale, Ghana." [The experience led to her getting two major contracts.]

Elina

Getting new products to market

Counter-clockwise from top left: "Final product, moringa tea", "Final Product. Tomato Powder." "Working on the smaller version of his solar food dryer"

Destiny

Entrepreneurs as transformative leaders

"A title or job designation does not make you a leader. You can lead from the middle — from anywhere, really."

Victoria

Transformative leadership is a core feature of the Mastercard Foundation Scholars Program. It is conceptualized as a series of skills and mindsets that Scholars can cultivate during their programs and take forward as they transition to further training, paid employment, and entrepreneurship. This Transformative Leadership model was developed by the Foundation in collaboration with Scholars and other young people (see Figure 6) and serves as a core part of the Scholars' "human capital" (see "Navigating entrepreneurship pathways with resilience"). When Diaries participants were asked about what it means to be an entrepreneur and the ways they exercise leadership through their entrepreneurship, they did not identify the concept of transformative leadership directly, however, the values they identified in their responses can be directly mapped onto the Scholars Program Transformative leadership model (Figures 8 & 9).

Figure 6: Mastercard Foundation transformative leadership model

MINDSETS — Courage, Empathy, Vision, Integrity, Resilience, Humility, Inclusiveness, Curiosity

SKILLS — Professional Skills, Ethical Action, Decision-making, Creativity, Collaboration, Critical Thinking, Self-awareness, Adaptability

BUILT ON A FOUNDATION OF **INTEGRITY** self-awareness and a deep sense of **PURPOSE**, **TRANSFORMATIVE LEADERSHIP** is the act of **ENGAGING OTHERS** TO **GENERATE POSITIVE** and **lasting** change.

Figure 7: Participants respond to the question: "As an entrepreneur, you are exercising leadership. What does being a leader mean to you?"

Men

Women

Figure 8: Transformative leadership skills in the words of SEF participants

Adaptability

"What it means to lead under uncertain times and during scarcity. With the pandemic lockdown measures, a lot of businesses are suffering. I am learning to step up and pivot in ways that are important and responsive to the current times. For instance, my team is leveraging the database of informal workers that we have to package hygiene supplies and deliver to families that need them."
Victoria

Self-awareness

"If I was doing this all over again, I would've been more flexible. When I started out, I wasn't so flexible. I will be more flexible and then listen to the customer or my users more. It's very, very important. It's a lesson that I learned the hard way, and it's definitely something that I would do differently if I was doing this all over again."
Nanah

Critical Thinking

"An entrepreneur is someone who sees a problem and performs problem analysis (to determine the root problem) and then brainstorms in order to find a sound solution to the problem."
Echo.Mike

Collaboration

"[The team] views the venture as their own initiative because they feel part of it, they feel that their opinions and their suggestions are valid and accepted anytime, every time."
Izzy

Creativity

"I wanted to come up with a simple yet effective solution that would help my community with this crisis. It was clear for me that the water and sanitation crisis in Kenya was, and still remains, a critical problem and new ways were needed to solve the problem."
Queen Bee

Decision-making

"Being a leader means that I provide guidance to the others and vision for the project. It means working hard, thinking deeply, and having a target/goal. It means that I am the representative of the company and I am responsible for all the activities happening in the company."
Eva

Ethical Action

"They should be able to overcome whatever comes their way, they should be able to stand for who they are. They should be able to present themself and articulate themselves on what they stand for and not let politics or whatever come in the way."
Dee

Professional Skills

"For anyone who wants to [start a] business, I advise him or her to work hard, to have good communication skills. To be a good communicator, to also be able to take a risk."
Suly

Figure 9: Transformative leadership mindsets in the words of SEF Participants

Courage

"I must admit I was a bit apprehensive starting the venture in thinking I'm going to be a leader. Because I thought I was young and still had lots to learn."
Ama

Empathy

"The best leaders try their best to really put themselves in the space of the people that they're trying to lead and really lead from that lived experience and lead from the heart in a very big way."
Nicole

Vision

"So, for me, I had a vision of creating a platform where young people come and get the necessary skills that allow them to have an impact within the community. So how do I achieve that vision? I need to influence others. I need to make sure that I have people in my team. And then these people have to be influenced, so they get to work towards achieving that vision."
Debb

Integrity

"But ultimately, if you're the one at the top, the CEO, president, or the one who's running the whole organization I mean, this is your vision and you are the leader in this organization and ultimately you have to be able to be the person who takes accountability for all the action, not just your actions, but the actions of your subordinates."
Takunda

Resilience

"Entrepreneurs stay motivated. Their accomplishments of small goals encourage them to aim higher. The fulfillment that comes with successfully completing a challenging and daunting task is a motivation for the next."
Elina

Humility

"In order for people to follow you, they have to believe in the qualities that you have, for example, integrity as well as humility. And that is something that a leader should possess for people to establish trust with that leader."
Echo.Mike

Inclusiveness

"A leader is someone who is open to ideas from other people. Someone who is open to innovations, someone who has the understanding that there is no right way to do something. I think a leader is someone who listens to other peoples' ideas, other peoples' perspectives."

Emerald

Curiosity

"You should be a learner. If you can't learn, you can't lead and if you can't lead, you can't be an entrepreneur. It's that simple."

Nanah

Servant leadership

"I consider myself a servant leader because I gain the satisfaction of honour or happiness in serving other people — serving my community.

Echo.Mike

Though the concept of transformative leadership was not identified by participants by name, the leadership style they mentioned most often was "servant leadership." A total of six of the 15 participants organically identified themselves as "servant leaders" and women were more likely to identify with the to be a social and servant leader in spearheading development

concept than men. Participants' conceptualization of servant leadership focused on:

- **Listening and empathy:** "A good leader must be a good listener. A leader must listen to the people. That is easy [to] do. I believe in servant leadership. You must be servants for the people that you're working with. We must be servants for our communities because we must put ourselves in the shoes of the people that we are serving." – **Destiny**

- **Putting others first:** "I think of servant leadership where your passion derives from serving people. Where you're motivated and you're driven by the thought of serving others. Where you put others before yourself. So, you are basically leading by putting other people before you." – **Dee.**

- **Bringing out the best in their teams:** "And I know from my own experiences that I do often practice servant leadership and do whatever I can for the team that I'm leading because I want them to be, and feel, supported as possible so they can do their best possible job and that is always a massive focus of mine, which drives me into the ground because I work far too hard for too many people." – **Nicole**

- **Shared decision-making and collaboration:** "I think it's servant leadership because in everything that I do, I believe in power sharing and also sharing the decision-making process. With my team, with my subordinates, I really appreciate the idea of having all of them sharing their ideas because this brings creativity, especially in the context of running a school where we need creativity, we need innovation. So, you need to get everyone on board with you to make sure that the power is shared." – Debb

- **Empowering others:** "Even when I'm not there, they know that they can do something." **– Debb**

- Giving Back: "I was born and bred in an agrarian and rural area. The challenges I faced growing up gave me strength, courage and I developed a strong passion programs of my community. I vowed to change the negative perception of rural communities as charity cases." – **Destiny**

- Leading by example: "I see myself as a servant leader because I prefer to be hands-on." – **Nanah**

The role of their current venture in their career plans

"I know it sounds a bit weird, but I feel like it's the brand you carry around wherever you go."

Ama

Participants demonstrate a powerful personal identification with their ventures, and a sense of satisfaction from serving their communities, which means that many see their ventures as a long-term commitment. Diaries participants imagine entrepreneurship fitting into their career plans in a variety of ways, indicating that these young people are reimagining career paths to include diverse activities — training, multiple ventures, and paid employment — at once. Their interest in entrepreneurship also shows that it is closely connected to values around personal growth, give-back, and autonomy. They saw their enterprises as:

- A chance to apply and expand their skills: "It's actually an exciting idea because it's around my field of study, as a chemical engineer, so it is also a way for me to

get to apply my classroom acquired skills into solving real, local, community problems as well as a way for me to motivate my local people and youth**." – Queen Bee**

- **A transitional phase in their career journeys:** "I will stay with this project because it's important to me and close to my heart. But in five years I won't be the best person to speak about this issue. Someone else will and I hope I create the platform and opportunity for them to step in and grow this idea and project and make it effective at serving the people it's meant to serve." – **Nicole**

- **One of many ventures they plan to launch (or have already started):** "In five years to come, I wish I had a big project or a big venture where I'll be employing like 10 people. In the coming years I want to open another shop or another part of the business in the city." **– Eva**

  "I hope to have started another business in agriculture, in tandem with [venture name] feed mill that focuses on the use of data analytics and unmanned aerial vehicles or drones to promote precision farming in agriculture and still be providing solutions to improve livestock production in Nigeria." **– Izzy**

- **A long-term commitment to giving back:** "By the next five years I can actually foresee a fully established sanitary pad making company with workers passing in and out…Looking forward to outreach to so many young girls and women out there and educating them on menstrual hygiene products and menstrual hygiene topics." **– Ama**

- **A full-time job after graduation:** "I'm actually planning that upon my graduation I [will] pursue this as a full-time career because the best way to start a business is when you're starting out. Once you are old you have a lot of responsibilities. Risk taking becomes challenging because you're going to have to settle for a job and salary and once you get into that, you're never going to get out. I'm quite optimistic about the future."
- **– Takunda**

- A preferred career path: "If [my plan for the venture] doesn't work out, then it has to be something I'm also passionate about. It has to be working for an NGO. I'm a feminist so it has to be something to do with girls or women." **– Dee**

- An opportunity for an autonomous path: "I would say [this experience] just really helped me to discover my career path. So before [starting the school] I knew that I wanted to venture into entrepreneurship. I did not want to work for someone, but I have never known in what field exactly." – **Debb**

Entrepreneurship as dignified and fulfilling work

"For me, fulfillment is when I'm able to make impact in other people's lives."

Dee

Supporting young people's transitions to dignified and fulfilling work is one of the main objectives of the Mastercard Foundation Scholars Program (see box "'Dignified and fulfilling work': an evolving concept"). When asked, all entrepreneurs who took part in the Diaries identified their work as "dignified and fulfilling."

In follow-up focus groups, they were also asked what the concept meant to them and why they considered work on their ventures dignified and fulfilling. Their answers were almost universally focused on their sense of satisfaction and accomplishment. For instance, Suly shared that part of what makes her work dignified and fulfilling is starting a business with very little and seeing it succeed, which she saw as a contrast to individuals who start a venture with a great deal of support and capital.

"Dignified and fulfilling, a big yes. I became a menstrual hygiene advocate without even realizing it in the process. This venture work for me is satisfying…. It's educational, it solves a problem, it's interactive, it's a thinking process and it affects lives. That makes it fulfilling." **– Ama**

"It makes me happy when I wake up. Every morning when I'm going through the comments that students are leaving under the lessons." **– Nanah**

They also focused on the satisfaction they derive from contributing to their communities.

"For me, fulfillment is when I'm able to make impact in other people's lives …our venture is actually dignified and fulfilling. The reason is because we're actually bringing comfort, we're making a difference." **– Emerald**

"I view it as dignified as well as fulfilling because doing what is best for society has always been something that gives me satisfaction. In this moment I'm trying to reduce the death of children under the age of five. That in itself gives me pleasure and dignity in that I know that I'm making a difference in this society. And I'll continue to do that." **– Echo.Mike**

In one case, part of the entrepreneur's fulfillment was creating dignified and fulfilling opportunities for others.

"I truly find my work as an entrepreneur to be fulfilling. On a personal level, I derive a lot of satisfaction from improving the lives of marginalized communities. My professional and academic work focuses on building and scaling public health and health planning solutions to the urban poor. These two streams of work are entangled. I find my entrepreneurship work to be dignifying as well, but not in even half the scale at which the impact dignifies lives of the people we work with. My team consistently

feels like they are doing something important for themselves and for others. Most of them know firsthand what it is to be without a source of livelihood, and to be excluded from the rest of the city. Other ways I look at my work include finding it to be rewarding, important, sustaining, and inspiring. In addition, what truly brings me joy is that my team and I are fostering a home-grown solution." – **Victoria**

Though participants mention the financial benefits and challenges of entrepreneurship elsewhere in the Diaries, only one participant shared that the potential to provide for their financial needs was a factor in their experience of entrepreneurship as "dignified and fulfilling."

"I'd say my work is dignified and fulfilling, because aside my satisfaction, my passion, and self-expression, which lies with the work, I'll be able to fully develop my skills in the long run and meet my needs with ease in abundance in the near future." **– Elina**

"Dignified and fulfilling work": An evolving concept

Definitions of "dignified and fulfilling work" are evolving and are grounded in young people's experiences. Early explorations of the meaning of this concept in Ghana and Kenya, as well as a recent alumni survey, have revealed some common characteristics in what young people perceive to be dignified and fulfilling work:

· It is work that provides an income that is reliable and sufficient to meet the needs of the employee and the people who depend on them;

· The work is viewed as honest and reputable;

· The employee is treated with respect in the workplace;

· The work provides a sense of satisfaction, purpose, and accomplishment.

Entrepreneurship as give-back

> "That's what I'm trying to do, create an ecosystem for the next young girl in Africa thinking about STEM."
>
> Nicole

In their definitions of entrepreneurship, leadership, and dignified and fulfilling work, Diaries participants emphasized the social good of their ventures as their primary motivation and source of satisfaction. The SEF funding required that the projects include some form of social good, though this was broadly

defined and could include job creation or supporting rural livelihoods. In describing their motivations for starting their projects, these young entrepreneurs often began by identifying a social need they were passionate about addressing (see Figure 10).

It was clear that they saw their social ventures as a form of "give back" — a core ethos of the Mastercard Foundation Scholars Program. They measured the value of their work in the context of its contributions to their communities. For instance: "I am passionately interested in helping young kids, young people … to become the competent young people that our community needs through education" (Dee). While all ventures were designed to be profitable or self-sustaining, when asked about "success" the focus was more often on personal growth or community impact. This impact is described in more detail in the next section. One participant also shared her ethical concerns about making a profit from venture-serving communities with very low-incomes and histories of marginalization.

Figure 10: Participants respond to the question: "How did you choose your project and what contributions has your venture already made or could make someday?"

Men

Women

Social ventures, designed for impact

"The first farmer we partnered with joined in after he saw the productivity on our farm."

Takunda

As they demonstrated in their understandings of entrepreneurship, leadership, and "dignified and fulfilling work," the 15 young entrepreneurs profiled here all designed their ventures for social good and for impact well beyond their personal needs and goals. Remarkably, virtually all the ventures have already made meaningful contributions. Using the Mastercard Foundation "ripples of impact" model, this impact can be understood at three different levels: impact on individuals, impact on families and communities, and impact on institutions and society (Figure 11). Since the enterprises are still quite new, most of the impact they described was individual and at the level of the family and the community, though all participants have very clear visions for impact at a much larger scale.

Figure 11: Mastercard Foundation's Ripples of Impact Framework

Change among young women & men

Change in households and communities

Change in institutions & systems
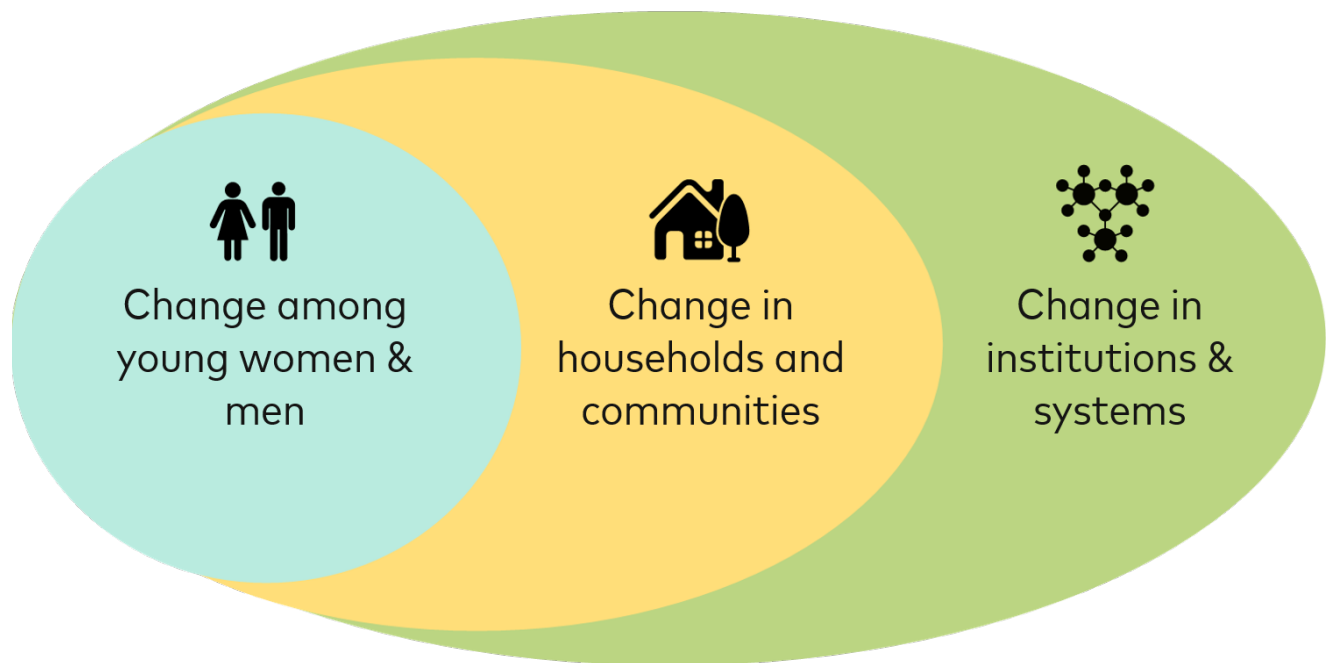
Changes at the individual level

It is not only their success at being selected for funding and establishing ventures that has led to change for these young entrepreneurs. Individual change connects closely to the transformative leadership approach that they have developed, their understanding of their work as dignified and fulfilling, financial benefits, the viability of their businesses, and their personal satisfaction (see "The meaning of entrepreneurship") and development of their human capital (see "Navigating entrepreneurial pathways with resilience"). This individual impact was also clear in the monthly surveys, which showed that many entrepreneurs were earning an income. For active ventures, the share of leads earning personal income from their venture ranged from 17 percent to 45 percent, depending on the month.

Changes in households and communities

Perhaps the most striking impact of these ventures occurred at the family and community level. Participants contributed to their household incomes (which was especially significant because of the economic hardships of COVID-19), employed family and community members in their ventures, provided innovative solutions to challenges their communities were facing, engaged community members as partners and beneficiaries, and gave back to their communities (see Figure 12). This is supported by findings from the monthly surveys, which show that, on average, SEF ventures employed one to four people full-time, though these numbers decreased at the beginning of the COVID-19 pandemic. They also engaged volunteers — an average of one to three per venture. Looking closely at the experiences of three entrepreneurs with active ventures shows that they have already made contributions to their families and communities.

Figure 12: Family and community impact profiles

Debb	
Education, DRC	

Contributing to household and family finances

"I can provide for my brothers and sister. I can pay my rent. I can take my young sister, I can take my children to school, for instance."

Educating neighbourhood children

"The school only accommodated kindergarten students. The school was renting a church space. Fortunately, in 2018 the school won [a grant] which allowed us to buy the rented space and build four classrooms. Since a complete primary school program requires six levels, there was a need for

two more classrooms to be built by 1st September 2019. That is why, [Name] School decided to take part in the Scholars Entrepreneurship Fund."

Employing two family members and ten young people as teachers

"Our teachers and staff members are from the community. Most of them are young people who were jobless. They did not have any fixed income."

Takunda | Agriculture, Zimbabwe

Addressing a challenge relevant to the household's livelihood

"I noticed how my family farm got less and less yields with each passing year and this was owing to a lack of technology and to climate change."

Engaging & training local farmers

"We have so far managed to run the program for at least one farming season with two farmers and their yields increased significantly… We had to teach them about bookkeeping [and] about making use of this agricultural technology."

Creating opportunities for young people

"We've had a couple of University students who have interned with us who are helping us."

Destiny |
Agriculture/food
production,
Zimbabwe

Improving farmers' livelihoods

"I can safely say that business was providing markets for local farmers. They also reduced the post- harvest losses and food wastage and, in turn, also increased their income in the profitability."

Creating new opportunities and contributing to household income

"Also, the business was creating employment for both my family members and other people within the community. Our disposable income [increased] as a family because I was employing family members."

Changes in institutions and society

These ventures are quite new, so societal impact and impact on ecosystems is limited. The most significant areas of potential impact at the level of institutional and social change are related to reach, advocacy, and the creation of new knowledge (see Figure 13). There is also a very clear intention to affect change by scaling-up ventures, continuing to invent and innovate, and through advocacy.

"Given that we have not yet made a profit, I can't say that I have achieved this or supported my family. But I plan to achieve many things in the future. We have contributed to reducing unemployment in general and we plan to develop ourselves and the country at large." "In five years, we would like to have different branches across the country that sell honey. As I had mentioned it earlier, we want to establish an industry that

produces body creams and soap from honey leftovers. We also want to increase the amount of honey exported." **– Eva**

Figure 13: Participants respond to the question: "Send us pictures of your venture at its best. What is happening in the picture? "

Creation of new knowledge

Get access

Volume 5, Issue 26 (African Materials Research Society 2019)
2020 , pp. 1367-1375

Development of a Low-cost Biomedical Device to Enhance Pneumonia Diagnosis in Children

"We have managed to be published in the Cambridge Journal. This is an example of how our project is doing well because people reach out, inspired by the project, and willing to assist on the journey. We have also been published in the main Zimbabwe newspaper, *The Herald* and this recognition allows us to make partnerships with other people who can be crucial in the project success."

Echo.Mike

Advocacy on a national stage

"This picture was taken at an event commemorating menstrual hygiene day. The venture was invited to participate and contribute to the discussion. I shared ideas regarding menstrual hygiene stigma in our society and how young individuals are contributing to

that. I also spoke about organic pads and their positive impacts. That was the first time I was given the platform to talk about menstrual hygiene and this was only possible because I am working on a venture relating to the subject."

"It took place in Accra, Ghana and was organized by UNICEF. At the event, there were representatives from the government, ministry for gender, ministry for education, NGOs working on menstrual hygiene, students from different high schools, and the UNICEF in Ghana team."

Ama

Addressing a societal need during COVID-19

"What students are saying about us"

"We've been able to impact over 3000 students here in this COVID season … we're one of the major sources of learning for high school students during this season."

Nanah

Navigating entrepreneurship pathways with resilience

"It's our first business, but sometimes we are scared. Scared of the unknown, business is all about risk. Though we are positive."

Emerald

When asked about their ventures, Diary participants described a variety of challenges — some that they had navigated successfully and many ongoing ones. Throughout, these young entrepreneurs drew on skills, strategies, information, and social networks to problem-solve. One way of thinking about these capacities is through the lens of resilience, particularly individuals' ability to access and leverage different forms of capital.

In the context of the COVID-19 Recovery and Resilience Program, the Mastercard Foundation defines resilience as "the capacity of individuals, communities, institutions, and systems to survive, cope, and thrive in the face of shocks and stresses" caused by the COVID-19 pandemic. Capacity is broken down into several forms of capital including human, financial, social, and physical (see Figure 14). While resilience and the use of capacities to address the challenges brought on by COVID-19 are critical, participants all demonstrated these resilience capacities throughout their entrepreneurship journeys, particularly as they navigated complex entrepreneurship ecosystems and in the context of uncertainty and change.

The young entrepreneurs profiled here are most successful at leveraging their human capital. This is most evident in the skills and mindsets they bring to their ventures (see "The meaning of entrepreneurship"). They experience considerable challenges accessing the financial, social, and physical capital needed to build their businesses. For instance, while they are very effective at engaging their closest contacts — family and friends — in their ventures, they find it more challenging to develop the professional contacts they need to build their ventures. Nevertheless, participants demonstrated their creativity and determination as they applied their capacities to navigating entrepreneurship ecosystems and challenges, especially during the global pandemic.

Figure 14: Mastercard Foundation's Resilience Framework – Forms of Capital

Includes savings, income, income diversification, and access to financial resources such as remittances, grants, credit and insurance. At the individual level, financial capital is mostly savings and income sources.

Includes networks, communication channels, families, communities, businesses, schools and voluntary organizations. At the individual level, it includes all the relationships with people and institutions that an individual can rely upon to secure a dignified and fulfilling life.

Includes health, knowledge, skills, motivation, capacity for relationship-building, passion, empathy and spirituality. At the individual level this includes the level and extent of these capitals. For institutions it incorporates the extent to which an institution can draw on its processes and constituents to develop and deliver human capital.

Includes the material goods, technology, and infrastructure produced through the processing, application, and use of the other capitals.

Two forms of capital not addressed in this report are: Natural Capital (which includes natural resources and processes to produce products and deliver services. At the individual and institutional levels, this could include access to fertile land for farming, or to clean rivers or forests for recreation, tourism or other use.) and Political Capital (which is crucial to decolonization in promoting long-term sustainability. It enables the enfranchisement of all to contribute to, or take part in, governance and decision-making.).Source: Mastercard Foundation. 2020. "Measuring Resilience" *Guidance Note*. Toronto, Mastercard Foundation.

Human capital

"We were losing most of our produce …. Our agriculture knowledge was very limited."

Destiny

Human capital refers to the qualities of individuals: their well-being, skills, knowledge, and abilities. Participants showed an incredible wealth of this intangible asset when they described the role of entrepreneurship in their career trajectories, the skills and mindsets they have applied and developed as entrepreneurs,

and even their advice to other entrepreneurs (see "The meaning of entrepreneurship" above and Appendix 8). Their passion, motivation, and empathy are clear in their understanding of their roles as leaders and their commitment to impact through their ventures.

Through the Diaries, participants also showed the ways they used their training, talents, and relationship-building to establish and build their businesses. Many were directly applying their training in fields like agriculture, engineering, and computer programs while others were showing their ability to learn new skills and apply other talents. For instance, Elina completed an undergraduate program in Medical Laboratory Sciences, but discovered her aptitude and passion for art, which she honed on her own, becoming a self-taught painter and entrepreneur. Elina's story also shows the courage and adaptability of Diary participants. These capacities are best demonstrated in their approach to uncertainty (see below) and their willingness to "learn-by-doing."

Learning-by-doing

"It's like watching something grow from scratch into something beautiful."

Ama

In the Diaries, participants showed how much they grew as entrepreneurs by engaging and adapting to the needs of their business and the broader ecosystem they were operating in — sometimes referred to as "learning-by-doing." They learned how to build websites, to manage teams, and to navigate sometimes challenging bureaucratic and administrative systems. They piloted projects with their families and friends, built new networks, and creatively used their relationships to expand their businesses. A closer look at Ama's learning journey highlights the ways she leveraged her personal capacities — her skills, knowledge, and ability to form relationships and problem-solve — to develop a new product (see Figure 15). She also shared that her experience was made more challenging because of gender discrimination.

Figure 15: A case study in learning by doing — Ama

"When I walked to a mechanic shop to explain what I wanted to do, they found it difficult to clearly understand. That meant I had to learn certain basic mechanical skills in the field for a couple of weeks."

"It was the first time I had ever worked at a mechanical industrial area. It is the hub of all mechanical works in Kumasi and I toured around the place while working on the compressor. I found two other useful [pieces of] equipment for the work"

"The raw material was first chopped, grinded, rinsed, dried before [being] ready for use. And this can take days if the weather is unfavourable unless you have a high-speed dryer for that purpose."

"Before arriving at a conclusive material with better absorption and retention rates, the fibre was subjected to different treatments. And that helped in settling on the best fibre treatment, factoring lesser procedures and cost."

"This is the 7th upgraded version of [product] so far, since the start of the project. It has gone through changes in absorption, thickness, weight, composition and aesthetic. From trials and lab test."

"This was at the inception of COVID and so interaction with other people was limited. Others were also skeptical to try out a new sanitary pad product. But some, such as in the picture, were excited to try out the product."

Financial capital

"I'll be able to fully develop my skills in the long run and meet my needs with ease and abundance in the near future."

Elina

financial capital as a key challenge to both launching and growing their ventures. SEF funding was a major boost to their plans (see also "Reflections on SEF"). They were reluctant to take on bank loans and none reported having them. In many cases, they were not eligible due to the restrictive requirements of traditional financial institutions.

Participants were also All Diaries participants described access to concerned about debt and high interest rates, and several described loans as inaccessible and their last resort:

"Accessing capital as a young entrepreneur is very difficult. One, the banks don't trust you and you don't have a track record, so no one is willing to go for money in your business." **– Nanah**

> "[A] third option is to go for loans. It's the least of our options and it's not something we've removed from the table…. I've looked through loan options in Nigeria and their interest rates are really high, that is probably another reason I am not motivated to go for loans." **– Izzy**

Rather, participants have been more successful at accessing capital through family and friends and grant funding. When Debb was expanding her school building she relied on grant funding from a not-for-profit. Another participant, who needed to raise more capital to re-start operations after COVID-19 shutdowns in Zimbabwe, hopes to use his own income, loans from family and friends, and to identify local grant opportunities.

> "I think I'd prefer to ask my friends and family members. I was selected for the [Fellowship]. The fellowship aims to facilitate transition of recent graduates from university to purposeful work in Africa by coordinating business support opportunities and placements in the home countries of the graduates. I am participating in the program under the Agricultural Entrepreneurship track. I will be receiving a small monthly stipend and I will have to do a lot of budgeting to see if I can find a few dollars I can reinvest in my business." **– Destiny**

A few participants were prioritizing grant funding opportunities that are part of larger entrepreneurship programs, which included wraparound support services such as training, mentorship, access to networks, etc. As opposed to just receiving funding, this approach enabled accelerated growth because it combines building human and social capital with financial capital. For example, when describing his approach to grant applications, Izzy said, "there are a couple we applied to where I send staff to grow and apply their skills. And that's what we are focusing on mainly next year"

However, given the challenges of accessing capital, most of the entrepreneurs face financial constraints and have had to make difficult decisions. Some, such as Ama and Elina, learned new skills to be able to cut costs.

> "I learned to stretch my own canvasses; this is a step in the right direction as I have found a way to drastically reduce the cost of producing a canvas painting. I also learned to frame my pencil works, so I wouldn't have to pay someone to get it done." **– Elina**

Others, such as Izzy, relied on jobs or scholarships to cover business costs when crises hit and were able to re-direct a few months of a full-time salary into the venture to keep it afloat. Recognizing the ongoing need for capital, a few entrepreneurs have focused on new opportunities for monetizing services or products and are in various stages of introducing these new revenue streams, such as monthly subscriptions for e-learning services (Nanah), developing a new line of fertilizer (Takunda), and paid training courses to upskill candidates on a job-matching platform (Victoria).

Social capital

> "We were supported by many people, especially people that are already in this field."
>
> Suly

Participants varied in their access to social capital — i.e., the relationships with people and institutions that they could leverage to support their ventures as well as their overall sense of community and shared purpose. All agreed on the importance of relationships — particularly in the context of networks, accessing information, and mentorship — and identified it as a core requirement for a successful business (see "The meaning of entrepreneurship," "Reflections on the SEF," and Appendix 8). For instance, several of the participants' word clouds show the centrality of others to their visions for their businesses (see for example Victoria's word cloud participant 13) with "team," "people," and "community"). As these young entrepreneurs navigated the challenge of building a business, they also showed the many ways they relied on trusted people in their lives to solve problems and the moments where they lacked the social capital to address a challenge.

Family, friends, and community

"The community is your resource, use it."

Debb

Entrepreneurs relied on the strongest relationships in their lives — with family, friends, and immediate community members — to support their businesses. As well as financial capital, these close relationships were a major source of staffing, partnership, resources (see also "Physical Capital" below), and emotional support. The entrepreneurs profiled here emphasized the importance of their families and teammates in making the ventures possible.

Building Teams: Many of the entrepreneurs formed teams with their friends. Both Eva and Nanah described how rewarding it was to be friends with their teammates. "We try to stay very connected on as much as we can, because we were friends it's very easy to do that. I do 50 hours a week on this, I work from Monday to Saturday" (Nanah). Destiny also showed the limits of this approach when he shared that his early choices for teammates were not ideal:

> "When I started my social enterprise the biggest mistake that I did was to look for good people to be my team members. In actual fact, I was not supposed to look for good people, but I was supposed to look for the right people because I just selected people based on their being social to me, them being my friends, but without the required attributes needed to be a team member in a social business." **– Destiny**

Nicole had a similar experience.

> "I started this project with a friend … of course 2020 was a very interesting year with surprises and roadblocks and during that time she exited the project, which was really sad and pretty demotivating to an extent. But I had enough passion and love for the idea that I stuck with it, and this September I decided that I think I wanted to involve more people and I did some mini recruitment within my networks and asked a few people to get involved and they did pledge to. That being said, they haven't been as motivated and committed and serious about it as I would like them to be." **– Nicole**

This demonstrates some key challenges: difficulty building the right teams to support their goals, and not having access to the kinds of professional skills they need to round out their businesses.

Information and help: Friends and family were also sometimes resources for information and support when these entrepreneurs experienced challenges. For instance: "I had to get the help of another friend who usually does online transactions to expedite the process for me." (Ama)

Staffing: Suly and Debb both engaged their parents directly as part of their ventures' management and leadership team. For instance, Suly shared, "my mother and my father … are also taking part in the business because they also check how the business went." Similarly: "Family members also come around to volunteer and assist when there's a lot of work and when we don't have enough staff on the ground." (Izzy)

Experimentation: As described in the section "Social ventures, designed for impact," Takunda convinced his family to experiment with his precision agriculture ideas. Once his family's farm started to show some early success, Takunda was able to convince neighbouring farmers to adopt some of his agricultural methods,

with positive results. While all ventures profiled here were community-oriented in their give-back and intended impact (see "The meaning of entrepreneurship"), several like Takunda's relied directly on their neighbours to support their enterprises as partners, vendors, customers, and clients.

Key stakeholders (service users): This community engagement is perhaps most striking in Debb's elementary school, which responded to a community need, employed young people in the neighbourhood, and relied on strong community buy-in to ensure children were attending and having the best possible experiences. For instance:

> *"We involved the community because they will be the people buying your services, buying your product, even helping you in making the products so if you do not involve them from the start…why would they trust you if you if you did not involve them from the beginning?"* **– Debb**

Inspiration and support: Participants were also inspired by their families — two saw their mothers as a source of leadership inspiration. Ama identified her father as a source of inspiration: "His level of resilience is to another scale. I have seen him try a number of jobs and each time it fails he is always on the move. He is always full of ideas and creative."

Figure 16: Participants respond to the question: "Tell us about your team?"

Men

Women

Access to mentorship, experts, and networks

"I don't necessarily have to make all the mistakes since I can learn from other experienced entrepreneurs."

Izzy

Strong family and community relationships were a reliable source of support but did not meet all the entrepreneurs' needs, especially for professional expertise, mentorship, and sector-specific business information. This kind of support was something that participants felt was important, though many had challenges accessing it outside of the wraparound supports provided by their universities through the SEF program (see also "Reflections on SEF"). The types of supports they identified as gaps and potential assets were technical expertise, mentorship, advisors and professional expertise, as well as peer networks.

Technical expertise: Participants were eager to connect with, and learn from, experts in entrepreneurship and experts in their sectors or industries. Ama described how access to technical expertise has transformed the viability of her product and business:

> "So, there are the scientific and technical elements, which one lecturer in the Chemical Department in [university] has supervised and over the scientific in the technical aspect relating to the project. The absorption rate, their retention rate, the clarity rates. And there is the business and the financial advisory aspect. And the head of the centre, [name], who is supported by [name], who is also a project manager, have been providing legal advice in any business-related advice. Every step of the way, and

> there is IT. And then their graphics personnel. [Name] who has an in-depth knowledge and connection with website developers and social media handles, has been helping me on that one as well." **– Ama**

This kind of support was especially important for the entrepreneurs pursuing ventures in areas that did not align with their training: for instance, in the case of Elina who had a STEM-related undergraduate degree and was pursuing a fine arts venture and career. However, connecting with these kinds of experts was incredibly challenging outside of the wrap-around supports provided by their universities through SEF.[4] This challenge was also identified when participants discussed problems forming teams to run their ventures with the expertise they needed — for instance, professional expertise such as branding, accounting, and legal services (see also "Reflections on SEF").

Mentorship: The entrepreneurs were very enthusiastic about mentorship. In fact, finding a mentor was one of the most common pieces of advice participants gave to other entrepreneurs, but identifying the right kind of mentor was the main challenge. Again, institutional support played a key role in facilitating opportunities. Victoria described her experience being matched with a high-profile co-founder of a large social enterprise based in Kenya who she likely would not have met without the introduction from her professor. The mentor was also living in the United States, managing an enterprise remotely, and having to pivot their services very quickly under COVID-19. Victoria described this relationship as a major achievement for the venture and said, "I got a couple of lessons I can relate with given that we are also trying to pivot to be responsive to COVID."

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[4] For example, one university offered entrepreneurship courses as part of their regular programming, another provided specialized access to its science laboratory and advisers, and one institution ran an impact accelerator program to help Scholars refine their ideas and pitch for funding.

Advisory boards/committees: As a way of addressing gaps in expertise and building up their businesses, at least one of the young entrepreneurs profiled here assembled an advisory committee to help provide strategic direction for his venture. The board members were most often volunteers appointed by the entrepreneurs and identified through their own social and personal networks. The advisory committee functioned informally with members providing a combination of technical guidance and mentorship. According to Izzy:

> "We have an Advisory Council and the Advisory Council is made up of mentors and advisors of projects and some people that were in one of my entrepreneurship project teams. So, they often offer advice because it is always important to learn from people's mistakes." **– Izzy**

Networks: While participants' networks were often limited to their close family, community, and university circles, in some cases they were able to use these networks to identify experts and expand their professional networks. For instance, Elina shared that now, "I have more experienced people in my network who support various aspects of my business." This included industry-specific experts who advised on technical questions related to paintings and pencil drawings, as well as an artist with a studio who shares his workspace with her. This is yet another example of how effectively participants used the capacities available to them. As an entrepreneur in the tech space (e-learning), Nanah spoke about a vibrant start-up culture and entrepreneurship hubs, such as Ghana Tech Lab, that provide access to training and networks. Participants were also proactive about identifying potential communities and networks to join. For instance, Dee shared:

> "We asked if we could join the development committees. Representatives that meet monthly and discuss what the community needs and what kinds of resources can be helpful to the community. Every month they have a report, one which community can work on, and development type projects. We have information on what different

communities want for themselves. If we can just connect people who have these resources." **– Dee**

Nevertheless, their networks were limited. While Dee was able to connect with impressive not-for-profits in Malawi, she found it every challenging to find established businesses willing to hear her venture's pitch for corporate social responsibility collaborations. Access to new opportunities to meet potential mentors, experts, and peers was a key part of their wish list for future entrepreneurship program (see "<u>Reflections on SEF</u>" below).

Peers: Related to building their networks, young entrepreneurs often feel alone in their journey, so the ability to connect with their peers and learn from each other was highly valued. Those who did have access to peer networks — such as Ama who was part of a university community of entrepreneurs — were enthusiastic about the benefits of learning from other young entrepreneurs. Nicole also valued being associated with a university and the Scholars Program: "Being a part of the Scholar community provides a lot of support and connections with people who you can bounce ideas off of and be inspired by."

However, many found connecting with peers challenging, especially during the pandemic, which cut them off from these networks because of lockdown measures, university closures, and remote learning.

> "Connecting the different entrepreneurs that are under the same program with each other will help them become a community in which they can actively engage with each other and advise each other on the challenges that they face." – **Takunda**

Building social capital remotely

> ## "I have mentioned how hard it is to run a business while being based in the diaspora."
>
> Victoria

An added challenge for nine of the participants was collaborating with teams, managing staff, networking, and coordinating with suppliers and clients while living in a different country. All Diary participants seemed very confident with technology and, particularly during lockdowns (see also COVID-19 below), came up with new approaches to collaboration using Zoom calls and WhatsApp. In one case, an entrepreneur was relying on a trusted team while he completed his studies elsewhere. "But my business is established, and I have got an amazing, experienced team running [the] venture while we hold regular meetings to follow up on the progress of the Feed Mill" (Izzy).

These nine entrepreneurs described frustration with being far from their projects. For instance, Victoria identified remote management as one of the biggest challenges in running her business, even though it was a digital platform. When Destiny graduated, towards the end of the Diaries, he was thrilled to be returning home to work on his venture full-time. Queen Bee shared that at "this particular moment, there's nothing much going on. Since you know it's hard to control [the venture] when I'm over here, and it's all the way back at home and everything."

A related challenge for entrepreneurs was the disconnect between the regions they were studying in and the regions they intended to work in.

"Living [outside Africa] and trying to impact Africa can be difficult simply because you're not on the ground which makes it hard to build relationships with useful stakeholders…My venture is digital, so that it exists wherever I exist. There are many organizations in Zambia, but it is difficult to build partnerships simply because the work culture back home isn't necessarily virtual." **– Nicole**

As well as challenges building relationships, several — like Dee — struggled with the logistics of transferring funds between the country's they were studying in and the countries where their businesses were located.

These results support findings from the quantitative monitoring, which shows that entrepreneurs managing their ventures remotely were less likely to earn an income than those managing their ventures in person — a trend that became even more clear after the start of the COVID-19 pandemic (see also Fig A2.7, Appendix 2).

Physical capital

"It was a small 'win' for us … there is still more equipment to get, but we are grateful for the progress."

Izzy

The ventures and entrepreneurs profiled here have a wide range of physical capital (tools, infrastructure, and other resource) requirements. Ensuring these resources are in place requires ingenuity and creative problem-solving (human capital), money (financial capital), and support from family, friends, and other

members of their networks (social capital). There is also evidence from the monthly surveys that the procurement of physical capital slowed down during the pandemic due to mobility restrictions and rising costs.

In the case of the Diary participant learning to manufacture menstrual pads, access to equipment and supplies was a key part of her "learning-by-doing" experience, something she navigated through persistence and by applying her STEM training (see "A case study in learning-by-doing"). For technology-based ventures — e.g., job-matching, the educational platform, the delivery service, and remote monitoring of precision farming — having a reliable internet connection and maintaining their websites and platforms was sometimes a challenge, especially because of internet failure and load shedding. Entrepreneurs had few options to deal with these challenges, beyond patience, persistence, and a willingness to use their technological problem-solving skills. Though Victoria shared:

> "I find that Kenya's economy is very supportive of startups. Safaricom, the leading telecommunications company offers specific packages to host webpages and online platforms, emails etc. Mpesa, the mobile money platform made it easy for us to provide an easy way of making payments to our customers. Banks offer friendly Business account packages to start ups as well." **– Victoria**

Space was also a challenge. Debb needed to find funds to build a school and then additional funds to add on classrooms to ensure there was sufficient space for a full elementary school. Queen Bee's first step in launching her business was renting a viable space for her waterless carwash. Most others turned to their families or used their homes, growing mushrooms (Suly), and running an art studio (Elina) in the family home, and managing online businesses out of their bedrooms (Nanah). This was even more striking for agricultural ventures, where both Destiny and Takunda used their family farms as "proof-of concept" opportunities for their venture ideas before partnering with other farmers.

Other physical capital challenges involved acquiring the necessary tools and supplies to create art for sale, something SEF funding helped facilitate for Elina. In the case of Echo.Mike, laboratory equipment was necessary for developing and testing his medical device. Access to this was made possible on campus through his network, particularly his mentor, though it was disrupted by the pandemic (see COVID-19).

Navigating systems

"Being an entrepreneur means adjusting to your local environment to get the work done."

Ama

Entrepreneurs function in a complex and challenging ecosystem of legal, economic, political, and social dynamics. Though navigating these systems was difficult, participants leveraged their financial, human, social, and physical capitals to register their businesses and access services. All the entrepreneurs profiled here were extremely knowledgeable about the national entrepreneurship ecosystems they were part of. They also showed considerable awareness of the steps needed to register their businesses and comply with local rules (see Figure 17 and Box "National entrepreneurship ecosystems").

Figure 17: Participants respond to the question: "Tell us about the factors in your city, country, region, and industry that are supportive of entrepreneurship and those that have made it challenging."

Men

Women

One way the limits of social and human capital came out in the Diaries was when participants shared their experiences encountering unfair or dishonest practices while navigating these systems. When launching their ventures, most participants expected to experience some opaque processes and bureaucracies. Nevertheless, at least three Diaries participants identified corruption as a key challenge.

In Zimbabwe, Takunda spoke of the free government support services available to entrepreneurs, but that it is not clear how to access them. He said, "it's very difficult to get most of the free services from the government without the officials asking for bribes. [This] has been a major setback for most of our activities."

Similarly, in Kenya, Queen Bee described her very challenging experience working with both established businesses and bureaucracies while trying to obtain a business license and secure premises for her venture:

"In Kenya… Usually every office you go in you have to get licenses from your local government to do any small thing. And of course, the people already in business feel like you're a threat… they're trying to shut you down. So many bans. You can't put your business here. So many, many things." **– Queen Bee**

This increased workload, cost of doing business, and feelings of frustration could be felt across participants. In Nigeria, Izzy described the toll that lack of transparency and confusing systems is taking on his venture:

"Different community agencies will come to the feed mill requesting receipts for payment of dubious nature. For example, they could ask for 'community development levy' and we must pay or show receipt of payment. They come almost monthly and when they do, it's for a different reason. Although we have all our documents intact, they come up with different excuses to extort money from the venture. That has been a challenge and this is one aspect we never thought about when planning to establish the venture." **– Izzy**

Case study: Applying capacities to navigate challenging bureaucracies

Izzy described how challenges navigating systems were worse than expected, leading to significantly higher costs. His venture produces high-quality animal feed in a factory that relies heavily on machinery and reliable electricity. However, when Izzy refused to pay a bribe to the electricity company commissioner to install a prepaid electricity meter, the company declined to process their request. Instead, the feed mill has a postpaid electricity system, which requires company personnel to visit the factory every month and present a bill. He quickly realized that the bill was exorbitantly high and did not charge based on usage, resulting in a high financial burden for the venture. To mitigate the cost, the participant shared:

"...we managed to turn it into a source of revenue... we decided to also tap into the electricity connection and provide for homes and shops close to the factory. So more like we're selling part of our electricity to businesses and homes around [the] factory and we charge them a fixed amount of money monthly. So we used part of the revenue generated from them to offset the cost of electricity that the electricity distribution company gives us every month."

This creative solution to deal with a difficult situation demonstrates tenacity and problem-solving, and the ability to build and support relationships with community members. The case also demonstrates the precarious and risk-based nature of operating within a very challenging environment.

National entrepreneurship ecosystems

In Ghana, where three of the participants are located, there were mixed reviews about how challenging the entrepreneurship climate was. One participant was very positive and suggested: "The current administration is doing a very good job," and "It is easier to start a business in Ghana now as a young entrepreneur than it has ever been" (Nanah). As an entrepreneur in the tech space (e-learning), he also described a vibrant start-up culture with entrepreneurship hubs, such as Ghana Tech Lab, that provide access to training and networks. This was partially supported by Ama, who cited the National Board for Small Scale Industries and the Ministry of Business Development as supportive government agencies. However, as an entrepreneur in manufacturing, she experienced the expensive and time-consuming bureaucracy related to setting up a factory and applying for a patent. On the other end, as an entrepreneur in the arts space, Elina felt excluded from government support. For her, "the creative arts industry does not seem to be flourishing much in Ghana because our government does not invest in the industry so if you decide to be in this business, its success depends on you and perhaps the few people in your circle who will assist" (Elina).

In other cases, such as Zimbabwe where three participants are also located, there was greater consensus around a lack of government support. Business registration is seen as "expensive and time consuming, encumbered by a lot of paperwork," (Takunda) and a lack of government incentives and safeguards make it difficult for early-stage businesses to succeed. According to Echo.Mike, "most entrepreneurs end up giving up on their journey because once they register their businesses, they eventually start paying taxes while the business has not even started generating revenue. On the political side, there are cases where ideas of entrepreneurs were stolen and then not pursued after being stolen leading to poor development of the business."

Additional national challenges included high taxes in Malawi, increasing inflation in Nigeria, and political and economic instability in the Democratic Republic of Congo. But participants also described positive examples, such as a rich ecosystem of partnership-driven non-profits in Malawi, tax incentives for agricultural businesses in Rwanda, and a supportive economy for start-ups in Kenya.

The young entrepreneurs were not dissuaded by these challenges. They tended to view them as part of the entrepreneurship process, and if anything, a reason to push for change through their venture. Debb said:

> "The Democratic Republic of Congo is known as a country which faces a worsening crisis …. Consequently, [name] School has always been operating under a very stressful environment like all its competitors. Fortunately, the school has still managed to achieve its ideal mission." – Debb

Gender-based barriers and ageism

"Imagine this: two ladies under the age of 30 presenting in a boardroom to over 45 [year-olds], predominantly men, convincing them that we can do better than what they have been doing."

Dee

entrepreneurs themselves and men whose ventures were supporting women through their products or services.

At least three participants described stereotypical perceptions towards women in roles of authority, such as skepticism about their capabilities and doubt about the Another area where social capital mattered — and where participants showed remarkable resilience — was when they encountered discrimination. The challenge of gender-based discrimination

was identified by the women merits of their achievements. Elina shared that visitors to her art gallery were sometimes surprised that she was the artist, as they expected a male artist. She said they "get confused and do not believe a lady could create such pieces until I show them some progress shots while working on it." Similarly, Dee highlighted the challenges of entering male-dominated corporate boardrooms and pitching her idea as a young woman entrepreneur:

> "Definitely gender dynamics play a significant role. Since our venture is founded by two ladies, the two are the main proactive members who have

previously held presentation meetings with potential clients. We have felt a general lack of confidence and mistrust for our capabilities." **– Dee**

Exacerbating these perceptions, Ama identified the global focus on women's empowerment as a double-edged sword:

> "There are those, even educated, who still feel women entrepreneurs are just the phase of a new era. With the whole world trying to promote women's empowerment, some easily attach any success to your venture to, oh! It's because she's a woman she's had things easy." **– Ama**

She also described the challenges of daily operations, such as sourcing inputs where she dealt primarily with men (see also "A case study in learning-by-doing"). Many were uneducated on menstruation products — some thought she was talking about baby diapers — and others de-prioritized her work if she did not consistently follow up. "And so, if you are not there on the job, your work would be pushed as compared to a grown man to whom they attach maybe more reverence." She also found it necessary to meet manufacturers and suppliers with other women (acquaintances and family) to be taken seriously.

Gender-based challenges extended beyond the experiences of individual women entrepreneurs to ventures that supported women. For example, Takunda was unable to work with female farmers to the same extent as male farmers. He explained, "women have less land rights and this makes it difficult at times for us to have contracts with female farmers on land which they do not own" (Takunda).

Despite these societal constraints, virtually all the women taking part in the Diaries name other women when asked about who they consider role models. Seeing themselves and their aspirations reflected in women in positions of power was so rare that, when it did happen, it served as an important motivator.

"When I was in the university, I finish in the mathematics department. So, as of then, we had more male lecturers, not female lecturers, so we just had one professor in my department, one female professor, and I actually admire her because she's one of the most respected people in the department … so I think she really inspires me academically …. I always look up to her." – Emerald

"When I got to the industrial centre I met two other women working on their projects. They knew how to do all the skills I was then learning and had even designed a simplified cassava grating machine. It was encouraging to see that too and learn from them." **– Ama**

Participants' mothers were also named as key role models — especially their work ethic, how they sacrificed to raise a family, and their feelings of pride and ambition for their child's future. Debb described her mother who was the main breadwinner in the family: "All she did was to make sure that we were empowered so as to achieve something in our life … she never asks for recognition."

Along with gender, the intersecting challenge of ageism was also identified by three of the women. They believed that their opinions, skills, and ventures were not taken as seriously because of their age. This has made it more difficult to not only build their business but get in the door in the first place.

"There are many organizations in Zambia but it is difficult to build partnerships simply because the   work culture back home isn't necessarily virtual. As a young person I do also face ageism." **– Nicole**

"It was difficult to find information of where to work from given that this field has mostly old people working in it, and it was difficult for them to accept that young people want to run such a project." **– Eva**

Despite these challenges, participants showed considerable commitment to breaking down gender and age barriers and supporting the next generation of

women and girls. Nicole, motivated by her own experience of pursuing mathematics in university, envisioned a virtual community of young African girls empowered to make their own decisions and pursue traditionally male-dominated STEM subjects. As she expressed it:

> "I read something, which I think is brilliant, and it's that the next Bill Gates looks nothing like the current Bill Gates. And you know in my mind, it became that the next Bill Gates is some girl in Africa. I want to be a part of the ecosystem that encourages thinking that STEM is a viable thing to pursue, gives her the activities that make her think, that really show how interesting and creative it is." **– Nicole**

Navigating risk, uncertainty, and shocks

"Failure is a free university that students of success attend."

Echo.Mike

The four capacities described above — financial, human, social, and physical — were perhaps most visible in periods of uncertainty and crisis. These were the moments when participants demonstrated their resilience as entrepreneurs.

Looking at their attitudes towards risk, responses to failure, and approaches to managing competing responsibilities, they show the extraordinary human capital resources they have to draw on. Qualities like discipline, positivity, work ethic, and vision are very evident. Less obvious are financial and social supports to handle these uncertainties. This reliance on their own determination, knowledge, and skills is most obvious in their responses to the global COVID-19 pandemic.

Managing risk and failure

"I am not afraid of failure."

Emerald

During the Diaries, participants spoke frankly about the risk and uncertainty of doing business and the potential for failure. Operating in uncertainty is part of entrepreneurship but participants had different comfort levels with taking on this responsibility. Risk-taking was a shared challenge for all participants, which they saw as part of entrepreneurship (see also "The meaning of entrepreneurship").

> "Responsibility and being a leader also means that you know you have to be able to take a calculated risk. You know you have to sit down, have to calculate. You have to know, is there a chance of really making it by taking this risk, and if the answer is very strong, yes and then you take it. Risk doesn't simply mean you're going with something that's there's a high probability of failure, you've got to take it simply because you know there is a chance that you may actually succeed." **– Takunda**

> "There could be unpredictable events such as accidents, broken glass frames of artworks in transit etc. but an entrepreneur is expected to see beyond the negatives and put measures in place to minimize if not totally prevent such casualties." **– Elina**

This readiness for risk and failure came up most often in the case of financial uncertainty, something they felt all entrepreneurs should anticipate, but not fear.

> "You have to be ready that there will be a time that your business will not be doing well or there'll be a time where you thought you planned. You thought you set aside enough money, but you underestimated whatever you set aside. So, you have to be ready for that, you need your backup

plan on how you're going to generate money if things don't work according to plan." **– Dee**

Eva demonstrated her adaptability after a series of losses related to COVID-19 and weather.

> "To be honest I did not achieve much given that we are in a rainy period, and bees produce less in the rainy period. One of the beehives was spoiled and all the bees died, we have not yet understood the main reason. I therefore intend to remove that loss by reducing expenditure that is not very necessary." **– Eva**

Nevertheless, several also shared that they would have been unlikely to take this risk on if they had not received funds through SEF (see also "Reflections on SEF" below), had the support of their universities, or were at a different stage of life. For instance, Dee shared, "I would not have tried taking a risk by starting a business if it was not for SEF funding." Takunda also felt that it was much easier to take a risk at this stage of his life, i.e., before he had a nine to five job and family responsibilities.

Few described actual risks they were facing or anticipating. An example of specific entrepreneurial risks was when Victoria described challenges ensuring clients were happy with the temporary staff they were hiring, who sometimes overstated their qualifications. Similarly, Nanah was concerned about the possibility of the teachers he employed in his online platform bypassing the platform to teach the students directly. Agricultural risk was also a typical challenge mentioned in the monthly survey responses, particularly in relation to unexpected weather and price volatility.

Similar to their attitudes to risk, the idea of failure as an opportunity to learn was a dominant theme in discussions of leadership and entrepreneurship values.

"I approach failure by believing that it is an opportunity to bring change … and that way I learn from my mistakes and then I approach [the next challenge] with more knowledge, with more experience and that makes me deliver well and bring better results." **– Echo.Mike**

"Let's say that you're in this stage of temporary failure. If you're going to give up that means you are always going to be a failure, and if you're going to try, you'll face two outcomes, either you're going to be successful or you're going to fail. … So yeah, I always meet failure by sitting down and trying to find out what did I do wrong that made me to fail in the first place really?" **– Takunda**

When faced with failure, participants showed remarkable resilience and courage (see Figure 18), turning to their knowledge, skills, and positive mindsets to overcome the challenges.

Figure 18: Coping with failure
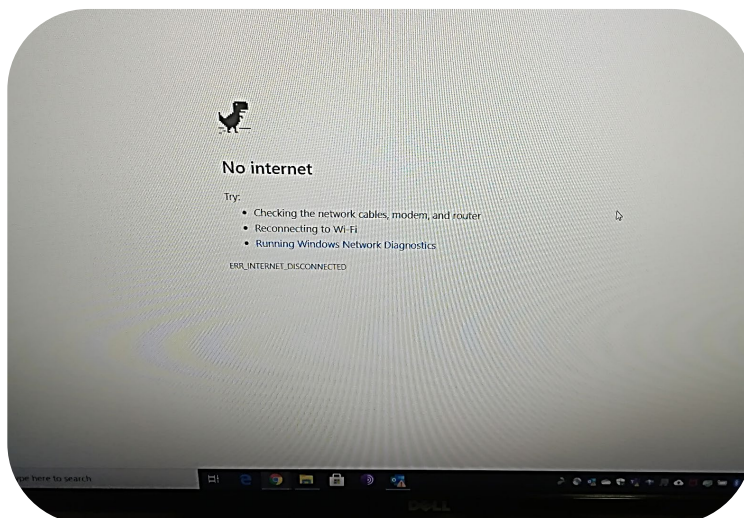
"Being an information-based venture we highly rely on the internet. In this picture you can clearly see that without access to internet our farmers cannot collect data from the sensors and log it into our

system and neither can we analyze and interpret that data thus decreasing our efficiency. Load shedding is also another issue as we cannot recharge some of the devices we use when working" **-- Takunda**

"One of the darkest moments while running this venture was when the hammer mill machine broke down while we had one of our largest orders. At that time, it took days for the machine to be repaired and we suffered a lot of hits from our customers.

To make matters worse, there was a thunderstorm during that period that sunk the roof of the building. Rain poured in and destroyed large parts of our ingredients and processed feeds. A golden rule for feed-mill is that there should be no presence of water in the mill. All this happened in the same period and it was difficult to handle. Managing customers expectations and losing some customers and investment as a result of the destruction of ingredients and feeds. Below, we exposed some ingredients to sunlight for them to dry after being soaked in the rain. At the time, we couldn't take pictures as we were overwhelmed and depressed" **-- Issy**
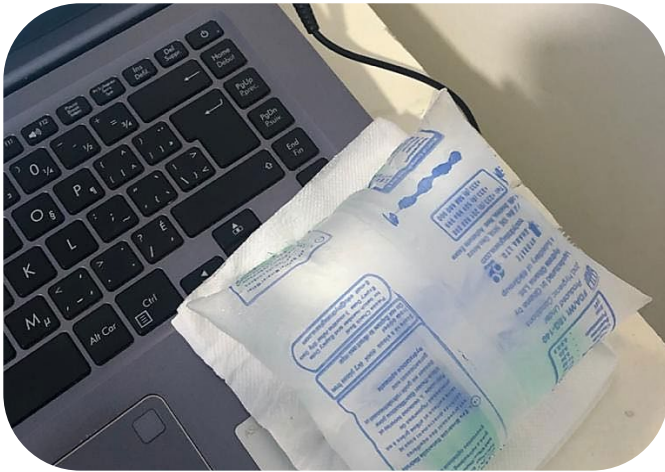
"On this day, my laptop fan got spoilt so I had to use ice for cooling it so I can edit tutorial content. Unfortunately, the laptop crashed after a few hours and I lost over 50GB worth of tutorial content. It gets worse, later that evening,

we got a message from one of our service providers saying we're going to be offline for 72 hours because of machine breakdown resulting from power outages. This has been the worst day in our company's history (June 3rd, 2020)" **-- Nanah**

"This photo was taken to remember what it felt like being stood up by a potential client. An hour later of waiting, no apologies given and could not be reached. However as an entrepreneur such setbacks should be used as motivation to book more meetings." **-- Dee**

Handling the unexpected: balancing multiple responsibilities

"I am proud to manage [my venture] alongside my degree."

Nicole

The timing of the Diaries offered unexpected insight into the challenge of work-life balance for participants. Several were in the middle of exams, final papers, and other end-of-semester demands. In some cases, this made participation in the Diaries challenging. In the monthly surveys, only seven percent of participants identified balancing school, work, and entrepreneurship as a challenge, but it was a prominent theme in the Diaries, likely a result of the timing.

> "Sadly, for the last two weeks I have been incredibly distracted by my degree. I'm entering Week 12 and my exams are starting officially, but my personal exams are next week and I've had a lot of projects to submit… but once this is out of the way, I'm going to get back to doing a lot of bits and pieces over Christmas break to make sure that [2021] has stronger stuff for us." **– Nicole**

Nicole's experience reflects the overall challenges that participants shared around integrating their work as entrepreneurs with their obligations as students and employees.

While work-life balance was clearly something that participants were struggling with, the kind of hard work and discipline needed to balance the many competing demands in their lives was a core part of their definition of an entrepreneurial

mindset (see "The meaning of entrepreneurship"). For instance: "For anyone who wants to set the business, I advise him or her to work hard" (Eva). "There is no doubt the business takes a lot of time. The only way you will be able to go through the hard times successfully is if you do work that you care about and that you truly believe in" (Izzy).

Nevertheless, participants were taking strategic breaks from their ventures to prioritize schoolwork. For instance, Takunda shared, "I'm currently writing my final Engineering's examinations for this year, and because of that there really isn't much that is going on with my venture. I'm quite certain that by the time I'll be done with exams there will still be a couple of more weeks before the planting season begins." Eva anticipated these challenges in selecting her venture. She chose her venture location and industry — beekeeping — because she determined it would not compromise her studies. Similarly, Destiny shared that his thesis was directly linked to the enterprise, which allowed for some synergy between the responsibilities. While managing multiple competing responsibilities was clearly challenging, participants were strategizing their workloads carefully, and identified hard work as a core part of their entrepreneurial journey.

COVID-19

"No one was ready for COVID."

Dee

The challenges identified by participants were exacerbated by the COVID-19 context, which was typically the greatest source of uncertainty for their ventures. For instance,

between May and September, 78-94 percent of SEF winners shared that they were impacted by COVID-19 in the monthly surveys and four were forced to shut down their businesses completely.

Though the pandemic was experienced very differently across the different national and regional contexts — with some participants in constant lockdown and others operating their businesses with no formal restrictions — every venture was affected in some way. In fact, one young person's participation in the Diaries, and their ability to run their venture, was directly impacted when they contracted a relatively mild case of COVID-19. Monthly survey respondents reported adapting to the pandemic as a major accomplishment, something participants in the Diaries also demonstrate was a key achievement.

Travel and mobility restrictions imposed during the pandemic were a major barrier. Eva had located her team's beekeeping business near her university campus to allow access during the academic year. When the campus closed and movement was restricted, they were unable to harvest the honey, most of which was eaten by the bees. As a result, her entire first production cycle was lost. Being sent back home also cut participants off from the networks and tools that were necessary to build their ventures. For instance: "The main obstruction we are facing is the COVID-19 pandemic which has affected our progress a lot. We could not continue with application for Institution Review Board to perform clinical trials in animal models. I could not access the [university] laboratory because I am in Zimbabwe" (Echo.Mike). He had no access to similar equipment or expertise in his home country.

By way of contrast, the return home, along with the flexibility of online schooling, was a benefit when ventures were in individuals' hometowns. It gave entrepreneurs the opportunity to provide hands-on management. Suly's business, dedicated to mushroom production, actually grew. "During this challenging time, I

was busy doing more activities on [venture] and it is a good time for me to work on it, to supervise, to put innovations, and take care of this venture."

Some of the participants best able to deal with the challenges of lockdown were the ones who were living or studying abroad and had already designed projects with the intention of running them remotely, at least for some of the year. Projects that had strong IT components were best able to adapt. For instance, Takunda's agricultural venture relied on farmers inputting data from censors via their computers, something that continued to be possible during COVID-19. Others identified new ways of working and managing teams, for instance using WhatsApp, but despite this ability to adapt to the new situation, managing teams this way was quite frustrating.

> "What is making this isolation particularly hard, is that I now cannot meet with my co-founders due to COVID-19 lock down and stay-at-home restrictions. While we stay in communication over the phone, and using Zoom and WhatsApp, there is a general fatigue and sense of disillusionment with everyone I work with. I imagine lots of businesses are struggling with this as well." **– Victoria**

The economic effects of COVID-19 were another challenge, closely related to lockdowns. Though none of the participants shared specific personal or family financial struggles because of COVID, it was clear that economies have transformed: some projects are less viable now, while others are uniquely positioned for impact. For instance, orders for livestock feed were down during COVID, because of diminished demand from farmers. Izzy shared that, "it is difficult to maintain the facility with fewer orders. The electricity bill is a constant and we still need to pay other bills including staff. Fewer orders means reduced profit on each order."

Similarly, the declining market for art and other non-essential consumer goods meant Elina's customers for her art business were cancelling orders and asking for discounts.

> "The panic and accompanying devastation from the pandemic had people use their income to stock up their food supplies and wouldn't consider buying artworks which they consider a luxury. Some workers too had been laid-off and needed to survive. Artworks at this point? No."
> **- Elina**

This general financial decline for SEF ventures was also apparent in the monthly surveys, which showed reduced incomes and a reduction in hiring, though there was evidence of income recovery towards the end of 2020 (see Appendix 2).

Others had challenges accessing supplies and needed resources: "I mean, if you order a product online it took longer to deliver and if you're into the business that I am, which depends on seasons and rainfall, really if you miss a delivery by a couple of weeks and you know the rain is coming, you've not collected any data then that's definitely going to take you a little bit back and cause you some losses because the data that you're going to have is not going to be that efficient." (Takunda).

There were several projects uniquely situated for growth, particularly online learning and food delivery services. Nanah's online education business was in demand: "Well over 2000 students from Ghana [are] using our platform, so I could say, it's a contribution and it's been a major avenue for studying for these students, especially during this COVID-19 season. Schools were shut down in March." The business also adapted to the COVID-19 context by offering "offline" training in certain regions experiencing significant challenges.

> "This is when we implemented [venture] in [school], a deprived community in the eastern part of Ghana. We did set it up in their library

so students can acesss our content offline when they are in library with their phones or library PCs. It's a success story because [venture] was going to be their only avenue for learning during the COVID-19 period. At the time we implemented it, no student had learned for two months due to school shutdowns. Over 100 students in the community are currently using [venture]." **- Nanah**

Even with disruptions to business operations and economies because of COVID-19, SEF winners maintain a community focus with their ventures. For instance, despite having to put staff on half pay, Victoria's job-matching venture pivoted to delivering hygiene kits in Nairobi as part of a collaboration with other organizations early in the pandemic.

The willingness to pivot and adapt was typical and speaks to the generally positive outlook among the Diaries participants. As in the monthly surveys, the ability to adapt to the changing context does not appear to be related to participants' past entrepreneurship experience (see Appendix 2). SEF participants were optimistic that things would "turn around" or "open up" in January. "We're just trying and hoping for the best that the COVID-19 pandemic will be over soon and the day-to-day operations will continue and then our project [will] continue moving forward" (Echo.Mike). When schools reopened in in the DRC, Debb celebrated with students and parents at the primary school she founded. But they also describe efforts to care for their mental health and are dealing with feelings of isolation, distance from their families, and general worry about COVID-19.

"It has been a very long, incredibly draining year, so that is definitely top tier activity in my mind... just trying to manage my mental health, manage my stress levels... and trying to integrate healthier practices." **– Nicole**

"I am a little sad and disillusioned with everything that is going on. I worry about my family back home since I cannot be with them. I do miss having

human interaction on a day-to-day basis, but I'm hanging in there. Hopefully, things look up in the new year." **– Victoria**

Case study: Adapting to total shut down

For Destiny, cycles of lockdowns combined with managing the project remotely brought the business to a complete standstill. The venture was focused on producing dehydrated food in Zimbabwe, using solar dryers, and relied on access to farmers' harvests and access to the market. He shared, "it has been so difficult for us to operate and also most of our customers [have stopped] operating and also most of our suppliers, the farmers are facing a lot of availability challenges." This was clearly a frustrating situation, though he was quite positive. "We're hoping that in the coming weeks … by the first week of January [we] will be back again operating and doing production at 100 percent capacity and we expect to continue growing our venture and operations." He continued to work on a related project aimed at providing online training to farmers while finishing his degree.

In January, when Destiny was able to return to Zimbabwe after graduation, he immediately pivoted his business to the new context — and a new lockdown. Within his first weeks of arrival, he planted his own food crops to apply his agricultural training. Despite this positivity and willingness to adapt, the series of stoppages has put the business at financial risk.

Reflections on the Scholars Entrepreneurship Fund and looking to the future

"I think almost every entrepreneur knows what they want to do, but how to get there is sometimes unknown."

Ama

During the Diaries, participants were asked about their experiences of the SEF program and what they needed to grow as entrepreneurs. They shared why they chose SEF, features that would be helpful for future entrepreneurship programs, and the support they need after SEF to continue developing their enterprises.

What was the SEF "value-add"?

SEF was implemented independently by each partner institution, which meant that each program had distinct features with various levels of support to participants. Participants were also at very different stages of their entrepreneurship journey. In the Diaries, there were three participants who had been running their ventures for up to two years, though the majority were at the concept and earlier implementation phase. All but one of these participants had developed their business concept prior to applying for SEF.

Despite these differences, participants held remarkably similar perspectives about SEF's value-add and their reasons for applying to it (see Figure 19). Most of the participants had developed concepts for a venture prior to applying for SEF and intended to pursue the venture with or without SEF funding. For them, SEF was an opportunity to build or launch their ideas with financial capital and greater confidence. Women appeared more likely to pursue the opportunity because of its connection to their studies and to build their ideas, whereas men were slightly more focused on the specific funding and wraparound opportunities (Figure 19).

"Applying for SEF wasn't the catalyst for the idea but a great opportunity to practice pitching it and I wanted the practice. I wasn't sure if I would gain the funding so that was a happy surprise." **– Nicole**

"I believe I would have done my best to pursue the project even without SEF funding as I genuinely believe in it although there would have been more challenges faced as compared to having pursued it with SEF." **– Takunda**

"Without SEF I might have still pursued this project, but I believe circumstances would have been different." **– Elina**

"The reason why I choose SEF, is because I have a will of having my own business, but it was difficult to get a startup capital" **– Eva**

Figure 19: Participant responses to the question: "Why did you apply for the SEF?"

Men

Women

There was a strong consensus about SEF's value among participants — both for its focus on social entrepreneurship and its comprehensive offering of funds and wraparound supports that enabled participants to gain expertise, develop their skillset, and mitigate the risk of entrepreneurship.

"I took part in SEF last year as I wanted to get a holistic experience especially after I had participated in many ideation and entrepreneurship courses both at school and as well as online." **– Queen Bee**

"I heard of the SEF in the later days of my university education and I thought it was a good initiative. Especially for Scholars out of school with ventures. It helps you to propel your venture with some funding. For me aside from the funding, I had already started working on the project for some months and I came to quickly realize that it was not just about start-up capital but also about the right mentorship and guidance. As a newbie

in entrepreneurship, I felt getting the needed coaching was good. And that was what the SEF program at [institution] also offered. You are attached with the Centre for Business Development for mentorship." **– Ama**

"I take this as an opportunity to acquire several skills, from business skills, servant leadership skills, to behavioural leadership, to project planning, and other life skills crucial for our community development. The financial resources provided by the programme were so central in bringing life to the program and ensured its sustainability." **– Destiny**

Social entrepreneurship

According to participants, SEF's social entrepreneurship criteria, as well as the Mastercard Foundation Scholars Program's focus on transformative leadership more broadly, set the program apart from other funding sources and entrepreneurship programs. These aspects of SEF appealed to participants' passion for servant leadership, solving community challenges, and creating social impact (see also "The meaning of entrepreneurship"). It connected to their values and goals. For example, Destiny explained:

"My passion for sustainable smallholder agriculture and rural development is strongly attached to my life story …. I strongly believe in the social transformation models of Mastercard Foundation and [university] hence my decision to take active part in the programs planned by the two organizations." **– Destiny**

Financial capital

All the participants identified access to capital as a critical value-add of SEF. It enabled the young entrepreneurs to:

Invest in their ideas at an early stage: "I have a will of having my own business, but it was difficult to get start-up capital, this is a reason why I decide to apply for a scholarship from SEF." **– Eva**

Focus on their venture: "And yet I had this amazing idea, without capital funding at the current state of my life in terms of finances it would not have been possible to have pulled through with the execution process. And thus why I chose to apply for SEF." **– Queen Bee**

Accelerate venture growth and product development: "I would have pursued this project without SEF because of its positive impact but the results of the project would take a lot of time due to no access to funding. SEF allows us to move faster than when using personal funding." **– Echo.Mike**

Expand the scale of the venture: "I would do the project if I didn't get SEF funding, but it would be small and would not be able to solve the problem for a large group of people as it is being done." **– Suly**

Mitigate risk: "I would not have tried taking a risk by starting a business if it was not for SEF funding." **– Dee**

Wraparound supports

Beyond funding, participants valued the wraparound supports. This included access to entrepreneurship training, mentorship, and technical expertise, which enabled participants to learn, use their funds more effectively, and strategically build their venture. Emerald shared, "SEF is a very flexible and educative program, I have been able to learn a lot and it has broadened my knowledge on entrepreneurship."

The training component varied depending on the institution. For example, Izzy talked about the practical training given at his university. He said, "the SEF program at [university] laid a strong foundation for my venture. They trained us on bookkeeping, financial management, tax registration, and provided legal advice."

Victoria described her pivotal experience at a five-day entrepreneurship bootcamp that was held on her campus. It focused on how to be a successful entrepreneur and launch a start-up, while also giving space for concept ideation and a business pitching competition.

> "The entrepreneurship bootcamp offered at [university] was instrumental in polishing our skills to lead and manage a business. We learned a lot about managing effective teams, pitching, and fund-raising, and the day-to-day logistics of running a business." **– Victoria**

While training laid the groundwork for skill development, SEF also facilitated access to mentorship and technical expertise that supported the young entrepreneurs to implement their vision. According to Echo.Mike, "we also have access to mentorship that is very crucial in ensuring that we have enough knowledge to connect theory and practical experience in bringing the project into success."

Similarly, Nanah and Takunda described SEF's value-add in relation to mentorship and learning from experts to effectively build a business:

> "Our mentor and consultant has been helping us with market research, business model restructuring, and revenue model implementation." **– Nanah**

> "For me, the Scholars Entrepreneurship Fund was a good opportunity not only to get access to funding but also to gain mentorship. Mentorship ensured that I don't get to make the same mistakes that my mentors

made and helped in getting things started especially in the initial days which were challenging as this was my first attempt at building a business." **– Takunda**

Mentorship also helped set the participants up for future success, as demonstrated by one participant who was able to secure additional funding for his venture:

> "My mentor helped with how to get additional funding not just from SEF but elsewhere. We looked at sustainable business practices and how to navigate the business environment in times of uncertainty like during this COVID-19 pandemic period." **– Takunda**

Overall, Diary participants felt SEF enabled them to turn their ideas into action, set the groundwork for their venture, and prepare it for growth. As Dee summarized, "SEF was the motivation we needed to tackle a problem that was previously realized."

What was missing?

"Your idea is your first capital."

Eva

Because the programs varied, some SEF participants received more wraparound supports than others. For instance, some funding recipients asked for training

and access to experts while others identified these as programs strengths.

Several Diary participants also mentioned challenges with fund disbursements — something that was also identified as a challenge in the monthly surveys. Participants also identified the following three areas as gaps:

- **Networking:** Participants felt there was a lack of peer networking and opportunities to meet industry-specific professionals. This was seen as a missed opportunity to connect and learn from others, gain insight into their peers' entrepreneurial journeys, learn the realities of their industry, and build a supportive network. For example:

> "For SEF I would probably keep all the structures that are in place right now. I could only add a platform where all the entrepreneurs from different institutions are connected to each other. This will allow entrepreneurs to share ideas about other sources of funding, tips on business, and many other things." **– Takunda**

> "It should also have all beneficiaries on a common platform where they can interact in real time, partner with each other based on fields, learn from, and support each other [to] grow." **– Elina**

> "What I think is lacking is hands-on mentorship from experienced business owners who are running a business similar to what the Scholars implement. Currently I have a mentor who has experience in fashion. In as much as she has helped in implementing the business model, I am also very aware that my business is not her specialty or field. As such, consultation and mentorship is limited." **– Dee**

- **Professional services:** Participants noted a missing link to professional services, which are necessary to build a successful venture. Without connections or support to access services such as legal, accounting, branding and marketing, fundraising, etc., the entrepreneurs often found themselves struggling to do it themselves or looking for team members with the right skillset who were also dedicated to their cause. Given the widely applicable nature of these services, participants felt they could easily be provided through SEF.

• **Brand visibility:** The entrepreneurs also observed a missed opportunity to highlight their ventures, build their brand visibility, and develop credibility as a trusted business. Endorsement from the Mastercard Foundation is valuable to young entrepreneurs just starting out, and an opportunity to share their products or services with others allows for additional feedback and refinement.

> "Include an opportunity for all beneficiaries to be invited to annual open day, fairs, or exhibitions to sell their products to a larger audience they may otherwise not have access to; it can be a grand event specifically organized for them." **– Elina**

> "I would offer more visibility for the teams participating, for example through a documentary on tv, or feature on newspapers, Mastercard Foundation's website etc. This helps the startups gain more public trust, more customers, more revenue etc." **– Victoria**

What do they need at this stage of their ventures?

"I am the kind of person who has a clear vision. I know what exactly I want."

Elina

Participants were also asked to reflect on their next steps and what would be needed to accelerate the growth of their venture (see Figure 20). Surprisingly, the focus for both men and women was less on funding and much more on holistic, wraparound supports.

- **Accelerator program:** Building on the access to training, mentorship, and technical expertise that SEF provided, participants identified the need for a "next-step" entrepreneurship program that would enable them to scale and bridge the critical gap between start-up and full implementation. Many of the young entrepreneurs were interested in building skills in areas such as people management, financial planning, risk mitigation, and project evaluation, as well as intensive guidance and support. They shared:

> "The next step for me is how to scale the venture from just a start-up phase to a fully-fledged company. I think this is a place where ventures go bust, remain stagnant, or grow to make a larger impact. How do I move from just this start-up phase to a fully-fledged company, still doing what we are doing, and doing it right?" **– Izzy**

> "… helps me develop systems which ensure my organizational sustainability: financial planning, reporting skills, instructional leadership." **– Debb**

> "In my next steps the program that will help me is guidance and evaluating the activities done." **– Suly**

> "From here on we would need something more of an accelerator program. In that you can bring in lots of mentors, consultants, and probably increase the financing a little bit. But the connection to the industry and the mentors in the various industries. We need connections in the various industries we work in. I would need people in the ed tech industry to mentor me, I am still a small boy. I would need someone to learn from their footsteps." **– Nanah**

Figure 20: Participants respond to the question: Tell us about your dream entrepreneurship program?

Men

Women

- Networks: To support the long-term growth of their ventures, participants highlighted the importance of networks in relation to both knowledge and resource exchange. From a knowledge perspective, the opportunity to learn from peers, other entrepreneurs, and industry professionals was seen as a critical next step. This could be through online forums, conferences, or professional memberships. From a resource perspective, the opportunity to crowdsource skillsets and fill gaps at the organizational level appeared to be an efficient solution for time-constrained entrepreneurs. For example:

"Right now, my team would most benefit from being matched with a similar start-up, perhaps later on in their entrepreneurship journey, anywhere in the world, solving the same challenge. Almost like a start-up buddy system. And we can learn endlessly from someone actually doing it … [also] crowd pooling skillsets and talent: Database of all

available skills and what each person is willing to offer/receive." **– Victoria**

"Accessing startup with membership to associations in fields relating to the venture [and] access to available and relevant conferences related to the field of the venture." **– Ama**

"Going forward I think that a program that can provide me with a wider network to other successful start-ups could be useful in helping me grow my business." **– Takunda**

- Financial Capital: Even though it was not their primary focus, participants emphasized the need for additional capital to invest in the next stage of growth. The challenges detailed in "Navigating entrepreneurship pathways with resilience" illustrate the difficulty of gaining investment, and looking ahead, finding new sources of funding is top of mind for young entrepreneurs:

  "Grants are very important. Sometimes the money we get from these scholarship programs, like the MCF, it's not really enough. It covers 1/10th of what we're supposed to do. Given there's more money we can accelerate." **– Echo.Mike**

In sum, the participants were keen to build on their experience with SEF and pursue entrepreneurship programs that offer holistic and intensive support to accelerate their business.

Experiences of past entrepreneurship prize winners

Three Digital Diaries participants had previously competed in the Resolution Project's Social Venture Challenge and won Resolution Fellowships. They gained access to seed funding, mentorship, training materials and resources, and a global network of peers and experts.

When reflecting on the process, the participants explained how it helped them to think through their ideas, refine their business pitch, and create a solid business plan that can be used for future funding proposals. One participant also described how the process helped build their confidence and influenced their decision to apply for SEF. They said:

> "Winning the Resolution Prize was a confidence booster that made me aware that other people believe in the idea I have. In that way, the more the investment, the better the progression of the project. So, definitely, it influenced my application for SEF." – Echo.Mike

> "It helps you to groom your idea and consider certain parameters you would have overlooked upon even at the onset. And I must add that most questions asked during the project assessment stage was really helpful in developing a good business proposal. I use those questions as a benchmark in writing out proposals to date." – Ama

> "I am proud at my ability to communicate the idea to them and all the support I now have access to which will massively grow the enterprise." – Nicole

Thirteen things we have learned from Diaries participants

"How can we bring about change?"

Echo.Mike

The findings from the SEF Digital Diaries presented here offer an in-depth look at the entrepreneurial journeys of 15 young women and men from across Africa over a two-week period. The clearest finding is how thoughtful, self-aware, and strategic these young entrepreneurs are. In describing their activities, successes and failures, and their understandings of entrepreneurship, as well as expectations for their ventures and for their own futures, they were also incredibly forthright and generous with their stories. Together, their insights suggest a number of opportunities for programming and further learning.

Young entrepreneurs have vision.

The most exciting things young entrepreneurs shared were their visions for their ventures and their own careers. They had no trouble dreaming big, but their ambitions were realistic and grounded in a sound understanding of their national and regional contexts and of their sectors. They have already made an impact on their families and communities (e.g., financial impacts) and are on a path to making an impact on the societies and systems they are operating in.

Takeaway: Young people are ready to innovate, adapt, and build. They are full of ideas and just need support to turn them into reality.

They have a good understanding of entrepreneurship …

When explaining the characteristics of entrepreneurs, the Diaries participants showed a sophisticated understanding of entrepreneurship. They were very positive about entrepreneurship, seeing it as dignified and fulfilling, though may have been somewhat idealistic about the "entrepreneur" archetype (e.g., idealizing the start-up life).

Takeaway: Entrepreneurship seems connected to these young people's own values. The wraparound supports provided appear to be readying them for their ventures.

…And understand their businesses and what they need.

Participants were knowledgeable and informed about their businesses and sectors. They were very aware of the context they were operating in and realistic about how they could move forward. Nevertheless, their greatest challenges were around leveraging resources to get there.

Takeaway: For this group, business acceleration programs would be an important asset to get their businesses to the next stage.

They are managing many responsibilities at once.

Most participants were combining entrepreneurship with their studies. This made time management and prioritization a challenge.

Takeaway: Opportunities to integrate entrepreneurship training with degree programs may alleviate some of this stress.

They would rather grow slowly and organically than take on extra risk.

Though they believed in risk-taking and demonstrated growth mindsets, this low risk tolerance seems very rational given their limited access to financial resources and networks beyond their close family and friends.

Takeaway: Young entrepreneurs would benefit from safety nets or opportunities to "fail fast" in a lower risk setting.

Their knowledge, skills, and mindsets are their greatest resource.

In building their businesses and responding to crises — particularly COVID-19 — young entrepreneurs showed their remarkable resilience was grounded in their own skills, knowledge, and mindsets (i.e., their human capital). Though they were very positive, there is some evidence of feelings of isolation, worry, and heightened stress because of COVID-19.

Takeaway: The development of human capital through continuing professional development and supports aimed at wellbeing and mental health is important for building resilience and long-term success as an entrepreneur.

Interventions and supports are needed to boost their access to social capital...

The young entrepreneurs profiled here relied on close, personal relationships to support their ventures. But who they knew mattered and they did not have the social connections needed to build their businesses. This was especially true for women, who dealt with both gender and age-based discrimination.

Takeaway: Young entrepreneurs are looking for opportunities to build peer networks, connect with entrepreneurs working on similar projects, and be matched with individuals who have skillsets they need.

...And to help navigate complex entrepreneurship ecosystems.

While they were very proactive about searching for opportunities, entrepreneurs found it challenging to access and understand the range of financing options and entrepreneurship programs available to them.

Takeaway: Tools to help young people navigate the landscape of funding opportunities and venture competitions would be an asset.

Finding the right mentors and experts for young people is key.

Participants were hungry for mentorship and expertise. Several had excellent mentors, but others were challenged by sectoral or regional mismatches with their mentors. Ultimately, they saw the need for multiple mentorship or network relationships — connecting them to needed resources — but also safe, trustworthy, and experienced leaders who could offer sound advice.

Takeaway: Mentorship is one of the most valuable supports for young entrepreneurs, but mentor matching should be intentional.

Women are experiencing additional barriers to entrepreneurship.

Women are participating in SEF at a much lower rate than men, especially as team leaders. The women in the Diaries also faced additional barriers as a result of sexism, including the intersecting barrier of ageism.

Takeaway: Entrepreneurship programming is an opportunity to encourage and support young women who may be reluctant to take on

the risk of entrepreneurship or may feel less qualified and experienced to be entrepreneurs.

Young entrepreneurs establishing businesses in other countries also have unique needs.

Though universities far from their homes may have world-leading entrepreneurship programs, entrepreneurs found the challenges of connecting to their home networks and mobilizing social capital difficult from a distance. Even the logistics of transferring funds and communicating with teams were major barriers for this group.

Takeaway: Programs for international students, including programs based in Africa, who are managing businesses in their home countries would benefit from strong connections to African-based or other regional networks and partners.

Give-back is important, but so is sustainability.

No entrepreneur profiled here appeared to be exclusively motivated by financial gain and all participants were very focused on their responsibility to their families, communities, and society. It is unclear the extent to which SEF's emphasis on social entrepreneurship pushed participants to frame their businesses this way. Nevertheless, there is some tension between the need to do social good and the imperative of profitability.

Takeaway: Entrepreneurship funds should ensure funded projects have the potential for sustainability.

We have a more to learn about young entrepreneurs.

This study shows many areas for further learning about the experiences of young entrepreneurs in Africa and the value of university-based

entrepreneurship programs. For instance, we do not yet know enough about how the different universities implemented their SEF programs though the diversity of programming is clear from these young entrepreneurs' experiences.
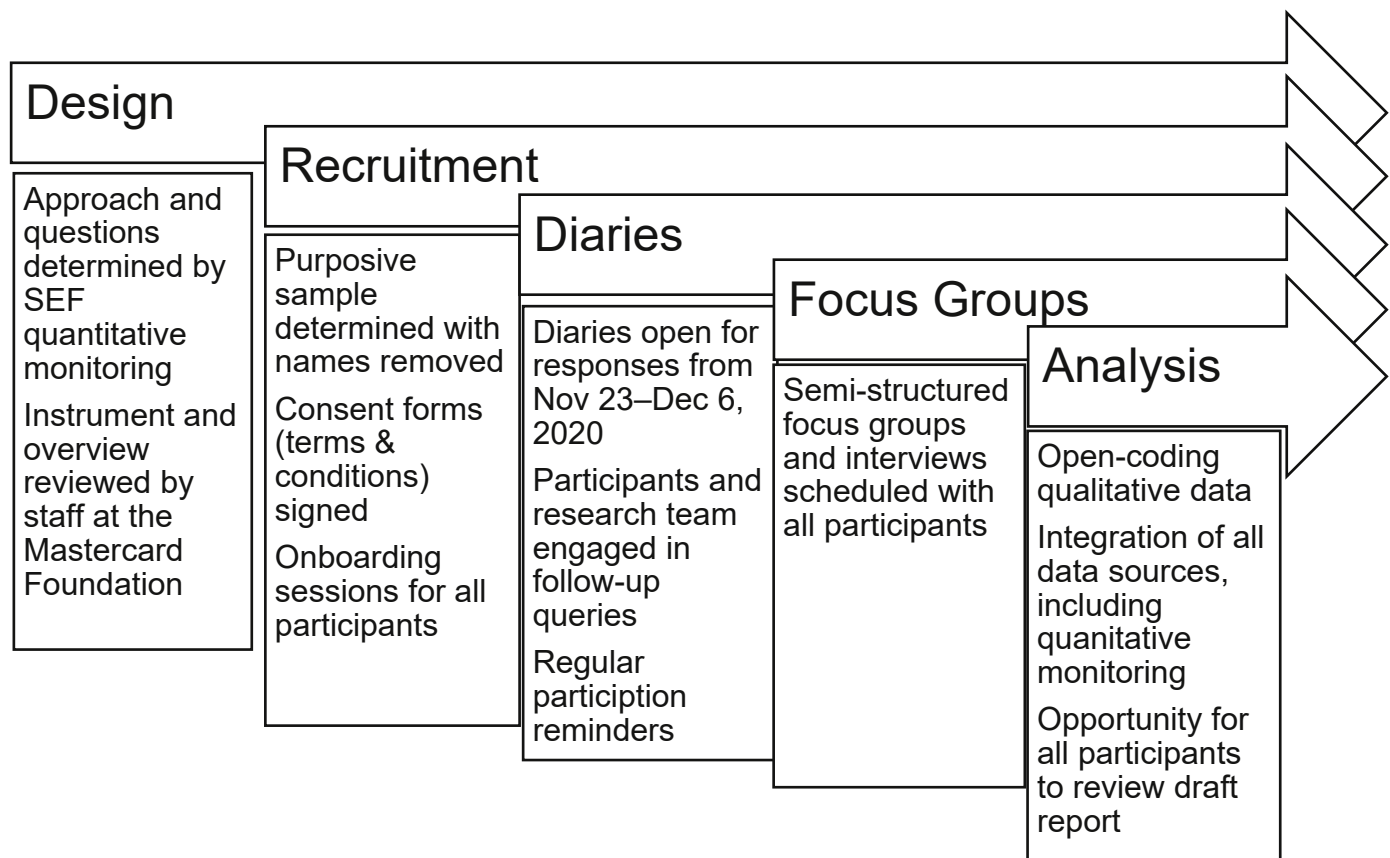
Takeaway: Entrepreneurship programs are an exciting area for monitoring, evaluation, and research. There is value in adopting approaches to data collection that centre the experiences of young people and engage them through participatory practices.

Appendix 1: Methodology

Diaries approach

The Scholars Entrepreneurship Fund Digital Diaries Project was a two-week digital ethnography designed to better understand the SEF program through the experiences of 15 program participants. Using the Indeemo Platform, participants were invited to respond to a series of tasks (or questions) through short videos, photographs with captions, and written responses. Participants also responded to queries about their responses from the members of the core research team. The study design and primary learning questions were based on findings from monthly monitoring surveys. These surveys also guided the purposeful recruitment of participants. Both the data collected through the diaries and the survey data were also complemented through a series of semi-structured focus groups with participants in the Diaries.

Overview of study design

Design

Approach and questions determined by SEF quantitative monitoring

Instrument and overview reviewed by staff at the Mastercard Foundation

Recruitment

Purposive sample determined with names removed

Consent forms (terms & conditions) signed

Onboarding sessions for all participants

Diaries

Diaries open for responses from Nov 23–Dec 6, 2020

Participants and research team engaged in follow-up queries

Regular particiption reminders

Focus Groups

Semi-structured focus groups and interviews scheduled with all participants

Analysis

Open-coding qualitative data

Integration of all data sources, including quanitative monitoring

Opportunity for all participants to review draft report

Design

The SEF Digital Diaries Project was designed to address three primary goals:

- Developing an in-depth, qualitative understanding of the entrepreneurship experiences of SEF participants and addressing knowledge gaps from the quantitative monitoring data;
- Applying participatory data collection practices and multi-media storytelling to centre the experiences and words of Scholars;
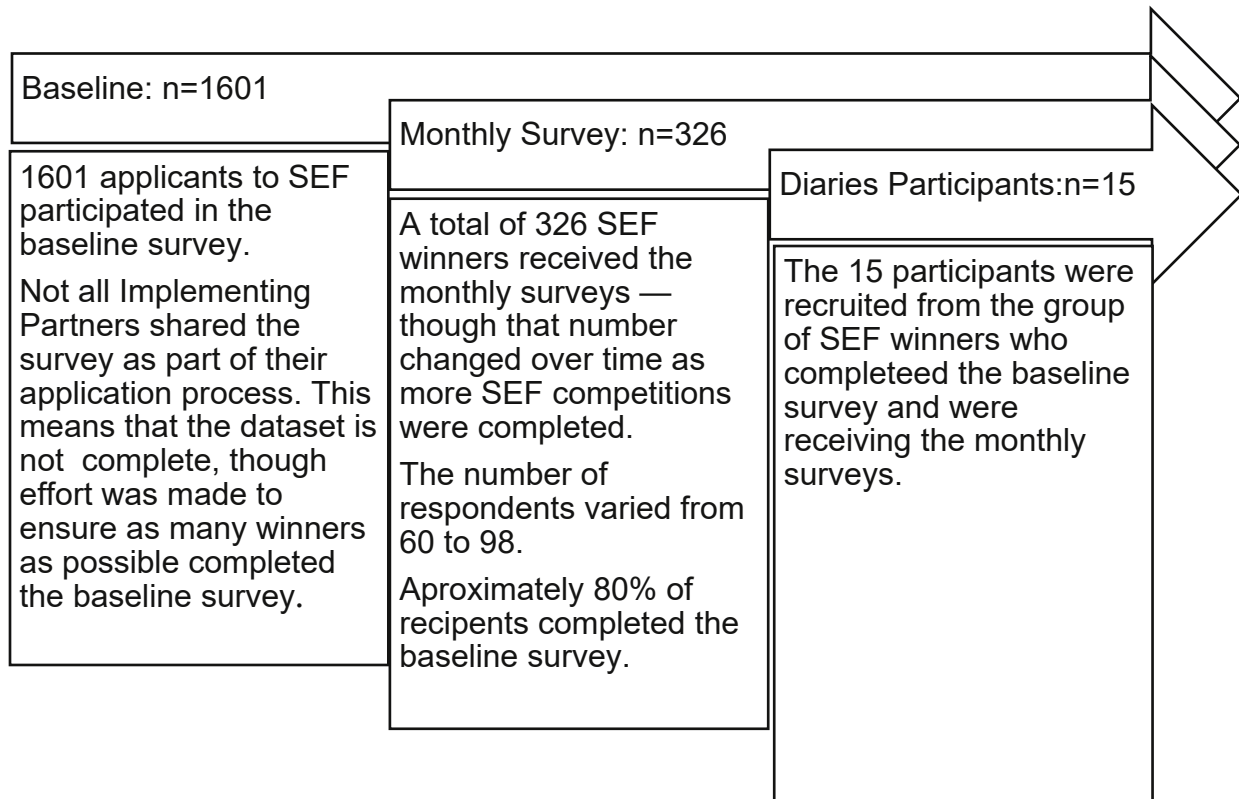- Adapting these learning needs to the emerging COVID-19 context.

Through consultation with Mastercard Foundation staff involved in the design of SEF, and after reviewing quantitative monitoring data, a diary methodology was identified as an appropriate approach.

Indeemo was selected as the platform to facilitate this process because of its General Data Protection Regulation compliance, out-of-the-box availability, options for customizing, and its reputation as an easy-to-use qualitative research tool. Given the novelty of the tool and overall approach, a series of focus groups was also planned to understand participants' experiences of the study and tool.

Recruitment, onboarding, and honorarium

The study relied on a purposive sample aligned with priority learning needs. As a result, participants were oversampled to include more first-time entrepreneurs and women (see "Recruitment overview"). An effort was made to include broad country, sectoral, degree-level, and institutional representation, however, one institution was oversampled to address regional and sectoral balance. As a result, the primary inclusion criteria were that participants were recipients of SEF funding and team leads. In one case, the official team lead recommended that a team member, who was ultimately the CEO, be included. An effort was made to limit the number of participants in the study who had already been profiled by the Mastercard Foundation, but three participants were identified as past Resolution Prize winners after the Diaries launch.

Recruitment overview

Baseline: n=1601

1601 applicants to SEF participated in the baseline survey.

Not all Implementing Partners shared the survey as part of their application process. This means that the dataset is not complete, though effort was made to ensure as many winners as possible completed the baseline survey.

Monthly Survey: n=326

A total of 326 SEF winners received the monthly surveys — though that number changed over time as more SEF competitions were completed.

The number of respondents varied from 60 to 98.

Aproximately 80% of recipents completed the baseline survey.

Diaries Participants:n=15

The 15 participants were recruited from the group of SEF winners who completeed the baseline survey and were receiving the monthly surveys.

Participants were selected from a blinded database of SEF project leaders who had responded to one or more of the monthly monitoring surveys. Once selected, the names were reintroduced to the database and the individuals were contacted directly by the Mastercard Foundation. Since institutions had ongoing recruitment and onboarding for their SEF programs, several additional participants were identified from a list of individuals who had not yet received the SEF monitoring surveys. A total of 20 people were emailed — five did not respond to their email invitations — to identify a sample of 15 interested participants. While efforts were

made to recruit French speakers, this was done through English recruitment emails and none of the francophone SEF participants responded.

All participants interested in taking part were sent a project information sheet and invited to small-group onboarding sessions, which included a project overview, clarified what involvement would include, introduced participants to Indeemo, explained the consent process, and reviewed the process for receiving an honorarium. A total of four onboarding sessions took place. Only one of the 15 participants was unable to attend and this participant was briefed over email. Before the start-date of the diaries, all participants were asked to sign a "Terms and Conditions" document outlining informed consent and data privacy considerations.

To ensure the inclusion and fair participation of all participants, honoraria were sent prior to the start of the diaries and set at an amount — $300USD — to facilitate the purchase of airtime, wi-fi, or even a smartphone. While the estimated time commitment was not onerous — 15 minutes each day plus the one-hour focus group— the honorarium was also designed to ensure participants were appropriately compensated for their time.

Data collection

The diaries were open over a two-week period (Nov 23rd to Dec 3rd 2020) with 15 prompts: 14 required prompts and one optional final prompt. Prompts were a mixture of two-minute videos, photographs with captions, and written responses (see Appendix 2 for complete list of questions). Prompts were released in batches of three to four, and participants had the option to respond to one prompt per day or to do several at once. Reminders to complete responses were sent via the app, or, in some cases for slow responders, via email. The initial period was extended by one full week to allow participants extra time to submit their responses. Two

participants submitted several of their responses to tasks after the data collection period over email, one in English and one in Kinyarwanda. In all, 14 participants were able to complete nearly all the prompts and only one participant's submissions were incomplete (four of 14 prompts).

During data collection, four members of the research team (UB, EG, RR, EA) engaged participants with follow-up queries and through Indeemo. These queries and conversations were another data source.

Once data collection through Indeemo was complete, all participants took part in semi-structured focus groups with two to five participants, and, in two cases, interviews. All interviews and focus groups took place on Zoom and were recorded. One researcher (UB) attended all sessions and each team member (EA, RR, EG) led at least one focus group or interview. Focus groups concentrated on understanding participants' experience with the methodology and application and addressing any remaining questions about their diary entries.

Three researchers (UB, EG, RR) also maintained field notes during the diary data collection and during the focus groups.

Analysis

All diary transcripts, captions, and notes were open coded using the Indeemo software by three researchers (RR, EG, UB) while data was being collected. When the diaries closed for submissions, the three researchers reviewed existing codes against field notes and the original learning questions and identified a series of "core" codes to integrate. Notes from the focus groups were used to support findings from the diaries. Findings related to the Indeemo app and methodology were extracted and synthesized (Appendix 7).

Diaries participants selected their own pseudonyms, and all quotations and examples were anonymized, where possible. All participants were given the opportunity to review the draft report and edit any quotes or examples, and six of 15 chose to review the draft.

Limitations

Technology: adapting to remote data collection: The study's focus on university students and alumni meant a high level of technological comfort, which was a major advantage in introducing a new application. Most found Indeemo easy to use. Nevertheless, two participants struggled to use the application — it is unclear whether that was a result of poor internet connectivity or technological skills. Aside from these two participants, data and internet connectivity did not appear to be a significant barrier to use of Indeemo but was a barrier during the Zoom focus groups.

Just one participant shared that device access was a challenge. They did not have access to a smartphone compatible with the app and elected to use a friend's device, rather than the web version of Indeemo. This meant that their responses and prompts were not strictly confidential.

The research team was also adjusting to a new technology. Despite technological support from Indeemo, some challenges emerged, for instance that the videos had automatic two-minute cut-offs — something the team was not aware of and did not initially communicate to participants.

Time and place during COVID-19: COVID-19 has presented significant challenges to Scholars and alumni. A potential limitation is that they were under unique stress and COVID-19 limited their ability to work on their projects. The one participant who was unable to complete the tasks shared that this was due to contracting

COVID-19. While these contextual considerations may be limitations, they were also an opportunity to better understand the effects of COVID-19 on enterprises and work/life balance for student entrepreneurs. In addition to COVID-19, participants were also occupied with exams and final papers during the period selected for the diaries.

Recruitment: Because the sample was based on participation in the monthly monitoring surveys, any individuals who were less engaged in the program or whose emails were not shared with the Mastercard Foundation would have been excluded from consideration. As Implementing Partners were all at different stages of recruitment and funds distribution, another potential limitation is that individuals receiving SEF funds more recently were likely excluded from the study.

Language: The research team did not include any French speakers, which was a major limitation in the recruitment of participants and engaging participants who may have preferred the option of speaking in French. The two participants who may have benefitted from being engaged in French, when asked about language preference, both shared that they would have preferred Kinyarwanda over French and appreciated the opportunity to practice their English.

Monthly monitoring surveys

The Mastercard Foundation Scholars Program built monitoring into the entire SEF program, first through an initial baseline survey that was integrated into the SEF application process. This baseline was followed up with monthly follow-up surveys sent to all winners. The data from these monitoring efforts informed the design of the Digital Diaries and are used in this report to describe the study population as well as to validate and contextualize findings, where relevant. The quantitative monitoring approach was designed by the Mastercard Foundation Scholars

Program and implemented by GeoPoll Inc., a global data collection firm with offices across Africa specializing in multi-country online, phone, and SMS surveys.

This process was carried out on a rolling basis between 2018 and 2020 as different partners launched their SEF competitions (and in many cases multiple rounds of their SEF competitions) at different times.

Process: 2018-2020

1. Implementing Partner institution launches SEF competition; a live survey link is included as part of the application process.

2. All applicants fill out the baseline survey that collects key demographic variables on the team (i.e., gender, country, level of experience etc.) as well as key insights about the planned venture (i.e., type of venture, area of focus etc.).

3. Once winners are selected by the Implementing Partner, the Mastercard Foundation and GeoPoll are notified and initiate monthly follow-up surveys with those winners (Oct 2019 to Nov 2020)

The learning priority for this quantitative monitoring was to better understand if SEF ventures were creating employment opportunities. Because SEF was targeting early-stage ventures, it was hypothesized that employment outcomes could not be measured as a static figure. Employment generated through these ventures would likely rise and fall as the ventures grew, paused, pivoted, or failed. Conceptualizing employment as a process (that ebbs and flows), rather than a stock variable, necessitated experimenting with a low-touch, high-frequency approach (i.e., monthly surveys) to collecting outcome data.

Though monitoring expanded to include questions on COVID-19, the core learning questions articulated at the outset of this monitoring effort were:

Employment	· Are jobs being created?
	· Are these jobs paid/unpaid? Formal/informal?
	· How fast do these ventures expand/contract in response to changing circumstances?
Finances	· Are the social ventures profitable/sustainable?
	· How fast do they spend down the grant (i.e., one big purchase, regular operating expenditures etc.)?
	· Do they have other revenue sources (income from sales, donations, investment, loans etc.)?
Outreach	Spillover effects — do companies/ventures reach others through:
	· Partnerships
	· Suppliers
	· Customers
	· Beneficiaries

Baseline surveys

The baseline survey was designed to provide insights into the characteristics of venture leads and their proposed ventures. These descriptive statistics provided an overview of the applicants and their entrepreneurial ideas. The demographic characteristics were also crucial for understanding trends in outcomes by gender, region, venture sector, and previous experience. The questions in the baseline survey were grouped in three broad categories:

1. **Demographic questions**: This section included questions about the venture lead, as well as the team members. It collected information such as

gender, venture stage, level of experience, country of origin, partner institution, subject area etc.

2. **Venture details**: This section included questions about the proposed venture such as type of venture, area of focus, and proposed impact. It also collected information on the current status of the venture, establishing a rough baseline to understand progress made in key areas such as sources of funding, partnerships, or contributions.

3. **Follow-up survey protocol**: The final section of the survey explained the proposed monitoring approach for winners and asked for consent to participate in follow-up surveys. It also asked a series of questions around preferences for those surveys (i.e., email vs SMS), and contact information.

The baseline survey link was open between December 2018 and January 2021 and, over that period, 1601 surveys from   Implementing Partners were submitted. Initially, the baseline survey was intended for all applicants to support comparisons between applicants and winners, but not all Implementing Partners were able to include the survey as a component of the application process. In those cases, the Mastercard Foundation followed up directly with winning teams to complete the survey. Currently, baseline data is available for an estimated 80 percent of winning teams and has been supplemented by data supplied by Implementing Partners.

Follow-up surveys

Follow-up surveys were designed to track key outcomes related to employment and venture finances over time. Working from the assumption that start-up ventures are very dynamic, a low- touch, high-frequency approach consisting of very short monthly surveys was implemented. Observing trends over time allowed a better understanding of the challenges entrepreneurs face along their growth path, informing future programming efforts to support them. Originally, these

monthly surveys were planned via SMS, but winners expressed an overwhelming preference for email-based surveys.

Monthly survey response rates fluctuated over time with an average response rate of 33 percent (see Figure A1.1). While this represents a high response rate for this kind of voluntary, high-frequency survey, a large portion of the population of winners did not respond to the surveys. Because we do not have full population data, it means that we cannot consider the findings from the follow-up surveys statistically representative of the population.

Attrition in the sample introduces self-selection bias into results, meaning that the findings may over- or under-estimate population trends. For instance, firms that have not started, or have failed, may not be answering the questions. Alternately, the most "successful" venture leads may not have time to fill out surveys.

Figure A1.1 – Monthly follow-up response rates

	Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020	Mar 2020	April 2020	May 2020	July 2020	Aug 2020	Sept 2020	Oct 2020	Nov 2020
Population	137	137	146	146	147	147	172	205	205	205	205	268	268
Respondents	94	79	41	53	29	52	45	59	69	60	19	93	64
Response Rate	69%	58%	28%	36%	20%	36%	26%	29%	34%	29%	9%	35%	24%

- *Note: No survey was conducted in June.*

Data analysis

The data collected through the baseline and follow-up surveys was cleaned and prepared for analysis using Stata. Data cleaning included de-stringing numeric variables and cleaning where text entry was not prohibited in the survey form; encoding data stored as text; removing duplicate entries; coding, and quantifying "other" responses where possible; renaming and labelling variables; splitting, multi-select variables; and anonymizing data. Cleaned baseline data was merged with follow-up data to generate an anonymized panel dataset. Further, administrative data including institution, gender, award amount, and project description were merged into the master dataset to supplement missing baseline data. Data analysis that was primarily descriptive was carried out using Excel and Stata. Summary statistics for key variables were generated, and cross-tabulations explored trends in outcome variables by key demographic characteristics of interest.

Limitations

While this approach to monitoring was designed to be nimble to account for the differing implementation timeframes and models across 20-plus partner institutions, the design generated some challenges that extended the overall data collection timeline and impacted the quality of the insights generated. Key limitations with the baseline survey are elaborated in Figure A1.2.

Figure A1.2: Limitations in baseline data

Limitation	Implication	Efforts to mitigate
Some Partners did not include the baseline link in their application process.	This meant we could not compare winners and applicants. It also meant we did not have a full understanding of how many applicants participated in competitions.	Followed-up directly with winners to ensure we had baseline data for winners.
Data entry errors — e.g., when Scholars picked the wrong Partner Institution.	This meant that in some cases we did not know which institution the Scholar attended, and Partners pointed out that we had incorrect lists.	Worked with Partners to clean lists for winners. Could not verify accuracy for all applicant data.
Open survey link that allowed for flexibility meant the form could be sent to non-Scholars.	This was rare but meant some ineligible applications were submitted through the baseline link.	Focused our analytics on winner data. Worked with Partners to verify but could not ensure accuracy of all applicant data.
As the baseline survey link was open, some Scholars submitted multiple surveys for the same venture.	This led to duplicates in the dataset.	Where multiple versions of the survey were submitted, only the most recent was kept.

The baseline survey asked for demographic characteristics of the "venture lead" — in some cases Scholars had trouble identifying one lead, or the "lead" was picked arbitrarily.	Gender and experience data reflected that of the lead and might have been arbitrary for projects that had co-leads.	There may be a bias towards males identifying as the "lead" of the venture. Further analysis to be done on the characteristics of teammates.
Sometimes the venture name, or the focus and model of the venture changed significantly between application and implementation.	This made it difficult to cross check data against information shared by Partner Institutions. It also meant that the baseline data might be out of date.	No mitigation possible as baseline data/firm descriptive characteristics were only collected at one point in time.
Not all winners submitted baseline surveys.	Missing data on demographic and firm characteristics.	Individualized follow-up directly with Scholars requested the completion of the baseline survey. This was highly time consuming but increased response rates to 80 percent of winners.

Non-response and attrition were the primary limitations. Because we did not have full participation in the follow-up surveys, it means that the analysis conducted is not a summary of actual population trends, but rather an estimate. There are two main implications to low survey response rates: (1) the introduction of bias (i.e., you may over- or under-estimate trends in the population), and (2) lower "power"

of the sample, meaning you get a higher margin of error and less precise estimate of trends in the population.

Understanding bias: Because participation in the monthly surveys was voluntary, some ventures elected to participate, and others did not. If the reasons driving the decision to participate or not were random, then we do not have to worry about bias in our results. Non-random attrition however introduces possible bias in our estimates. For instance, if venture leads who experienced challenges, or stopped their ventures, decided not to participate, we are making estimates about the population without information from those who are less engaged, meaning we would likely over-estimate results on employment or income generation. To test for possible bias, we used baseline data to look for systematic differences in demographic and venture characteristics between winners who participated in follow-up surveys and those who did not. Encouragingly we do not see differences by age, stage of venture, previous experience, university, location, and team size. That said, there may be unobserved variables such as motivation, confidence, or even continued engagement with the venture that introduce bias. While the tests we carried out on the sample were encouraging, it is still important to interpret the findings with a degree of caution, and to not take them as fully representative of the population of SEF winners.

Addressing low "power": A small sample size means you have less statistical power in your observations: i.e., the margin of error for estimates grows as your sample shrinks, leading to less precise estimates of trends in the population. The best way to address small samples is to encourage participation, which was done by engaging program leads at Partner Institutions, and by sharing data back with winners. Further, we decided to report all key employment outcomes with confidence intervals to again encourage caution in the interpretation of results.

An additional limitation was that the "population" of winners changed month-to-month as more competitions were held, and more winners received monthly surveys. This added a layer of complexity into the data analysis, as respondents were at different stages of the SEF program.

Appendix 2: Findings from the monthly surveys

Two main outcomes of Scholars' ventures were tracked through quantitative monitoring: employment and income. Below are findings collected through monthly surveys on the employment status of venture leads, employment generated through their ventures, incomes generated through ventures, and profitability. This data is not representative of the full population of venture winners.[5]
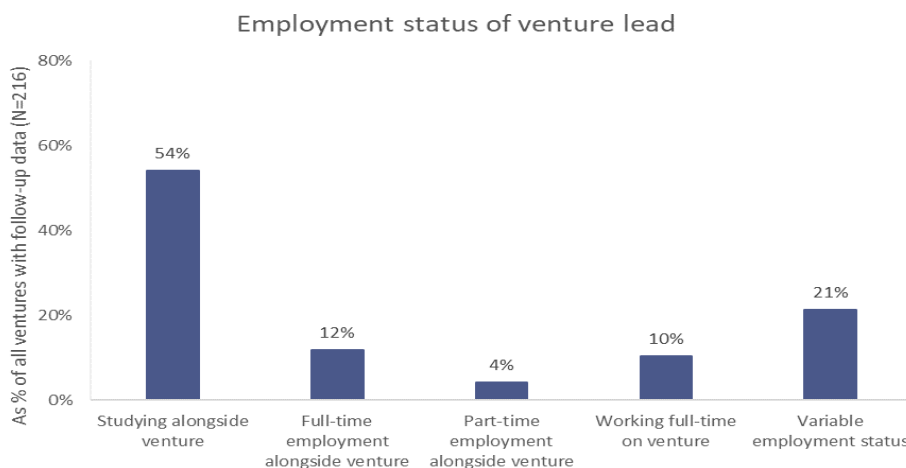
Employment

Figure A2.1 shows the employment status of venture leads who responded to SEF monthly follow-up surveys. The majority (54 percent) were running their ventures while studying. A smaller share (16 percent) was in paid employment while running their venture, either full-time (12 percent), or part-time (four percent). Remarkably, 10 percent of venture leads are working full-time on their venture, which indicates that for some, SEF has already supported transitions to employment. During the year of data collection, just over one-fifth of respondents changed their employment status during the year, either transitioning from school into work,

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[5] Because not all winners responded to the monthly surveys, the data suffers from self-selection bias. We share confidence intervals around the estimates where possible to indicate the extent of the possible range of outcomes. Note: Due to rounding the total is 101%.

securing or losing employment. Given the likelihood that survey respondents are more engaged than the overall population of winners, these findings are not generalizable to the full population.

Figure A2.1: Employment status of venture lead

Employment status of venture lead

As % of all ventures with follow-up data (N=216)

Category	Value
Studying alongside venture	54%
Full-time employment alongside venture	12%
Part-time employment alongside venture	4%
Working full-time on venture	10%
Variable employment status	21%

Looking at the number of employees hired by SEF ventures (see figure A2.2), it appears that SEF ventures were creating between one and four full- and part-time employment opportunities on average over the course of the year. These graphs clearly show the impact of the initial COVID-19 lockdowns through the period March–May 2020 on employment for SEF ventures. Employment drops from a high of 3.9 full-time and 3.5 part-time employees in February, to 1.7 full-time and 1.3 part-time employees in May. Employment figures stay relatively constant through the rest of the period under observation. Looking at the number of volunteers hired by ventures over this period, it is clear that ventures are utilizing volunteer support but there are no clear trends month-to-month in the average number of volunteers engaged. This suggests that volunteer labour was less sensitive to the impact of COVID-19.

Figure A2.2: Average number of full-time (left panel) and part-time (right panel) employees at active ventures
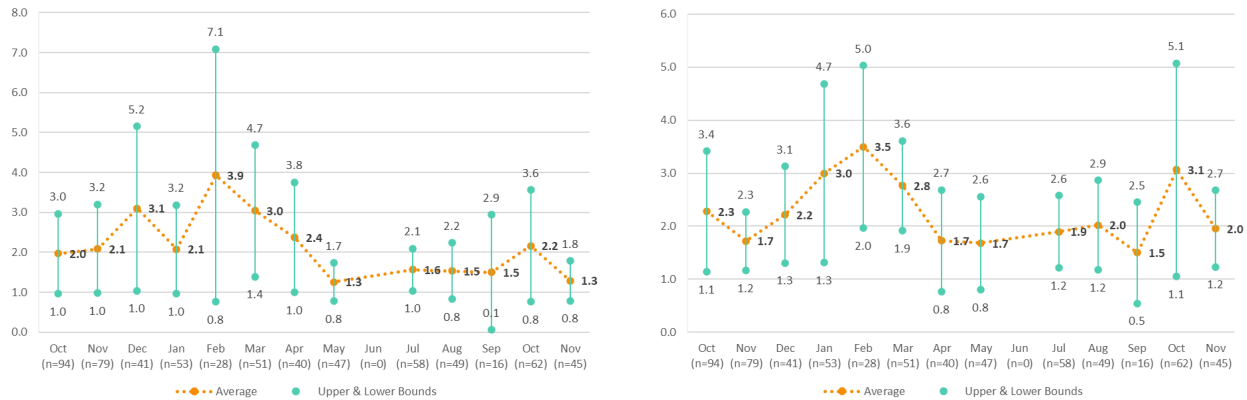

Figure A2.3 shows the sum of all employment (full-time, part-time, and volunteer) on average, each month for active ventures. Once again, this figure shows the negative impact of the initial COVID-19 lockdowns on employment. Job opportunities do not disappear, however, and remain relatively constant at a lower level through the remainder of the year. Across the period of observation, the average number of total employees (full-time, part-time, and volunteer) per month is 6.4 (see figure A2.3). A rough approximation of total employment by multiplying the overall number of winners (326), by the average monthly employment figure, provides an estimate that SEF ventures are creating on average approximately 2000 employment opportunities a month.

Figure A2.3 Average total employment at active ventures by month
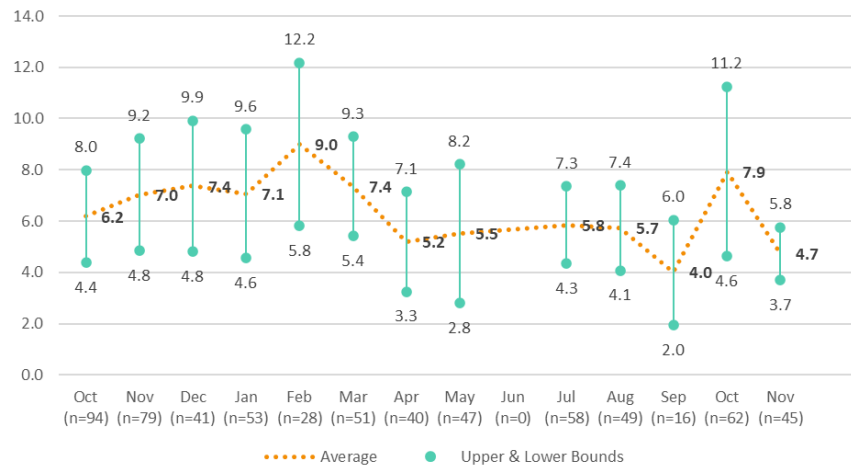
Job creation was analyzed by several demographic factors, for example gender, alumni status, and stage of venture, to see if there were any characteristics strongly correlated with higher employment outcomes at SEF funded ventures. As a result of the small sample size, there were no statistically significant differences in most characteristics. One exception, however, is if the venture lead had previous experience starting a venture. Particularly in the pre-pandemic period, we see higher employment numbers for ventures run by a lead who identified as having previous experience starting a venture. Because this is self-reported data, we are not able to verify the type, or depth of that previous experience. It is possible that this variable might be capturing more of an indicator of self-confidence and self-assuredness — characteristics often associated with entrepreneurial success — rather than just previous experience. Interestingly, following the initial COVID-19 lockdowns, the gap in employment outcomes between ventures led by those with previous experience and those without entrepreneurship experience narrowed significantly. There is no evidence of a faster recovery in those ventures with an experienced lead.

Figure A2.4 Average number of full-time employees at active ventures by experience of venture lead
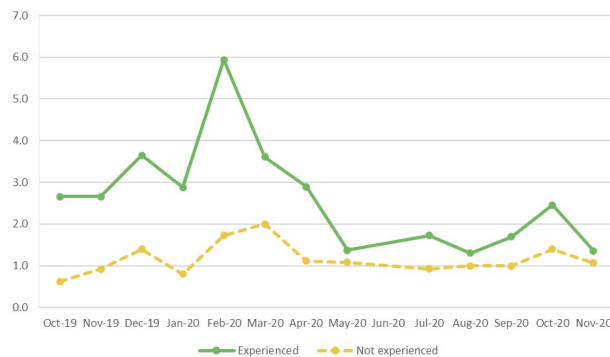
In the period leading up to the COVID-19 lockdowns (before March 2020) ventures with a lead with previous experience running a venture had, on average, 2 to 4 more full-time employees than ventures whose lead had no previous experience. After the onset of the COVID-19 pandemic, employment at ventures with experienced leads fell significantly whereas employment at ventures whose lead had no experience remained relatively consistent and at a low level. The number of full-time employees at ventures that had experienced leads remained just slightly higher than ventures with inexperienced leads for the remainder of the study (April to November 2020).

Income

In follow-up surveys, venture leads were asked if they were earning personal income from their ventures. Looking at active ventures in the sample, the share of leads earning income varied between approximately 20 percent and 40 percent. Similar to the trends we see in employment figures, the share of those earning

income also fell through the pandemic, although the trend is less clearly tied to the preliminary lockdown period for March–May. Contrary to trends in employment outcomes, however, we see stronger evidence for a recovery in income. Where employment outcomes hover at a consistently lower level following the initial COVID-19 lockdown, the share of ventures reporting income increases through August before levelling out.

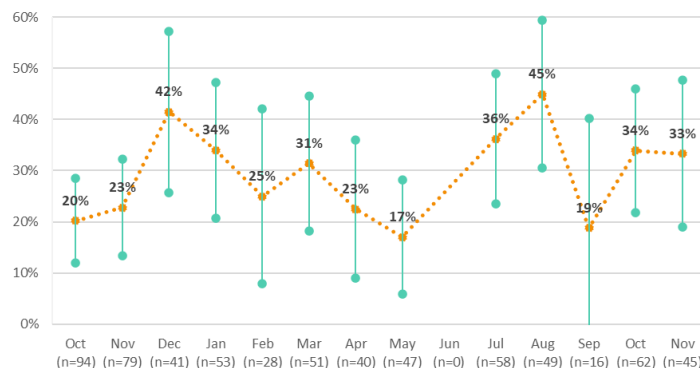## Figure A2.5 Share of leads earning personal income from their venture by month, active ventures

Figure A2.5: The share of leads earning personal income from their ventures varies by month. At the start of the study period, in October 2019, only 20 percent of active ventures had leads who earned personal income from the venture. This rose to 42 percent by December of 2019 and then fell consistently month over month with the onset of the COVID-19 pandemic, bottoming out at 17 percent in May 2020. The share of ventures where a lead earned income rose until August, reaching a new high of 45 percent and levelling out around 30 percent for the remainder of the study.

While we examined if the likelihood of earning income was correlated with various demographic characteristics, we did not find statistically significant differences by sex or alumni status, likely a result of the small sample size. Unsurprisingly, those who were studying or in full-time paid employment were less likely to report earning

income from their ventures than those who were spending more time on their ventures.

Figure A2.6 Share of leads of active ventures earning personal income from their venture at least once, by employment status (top) and by experience level (bottom)
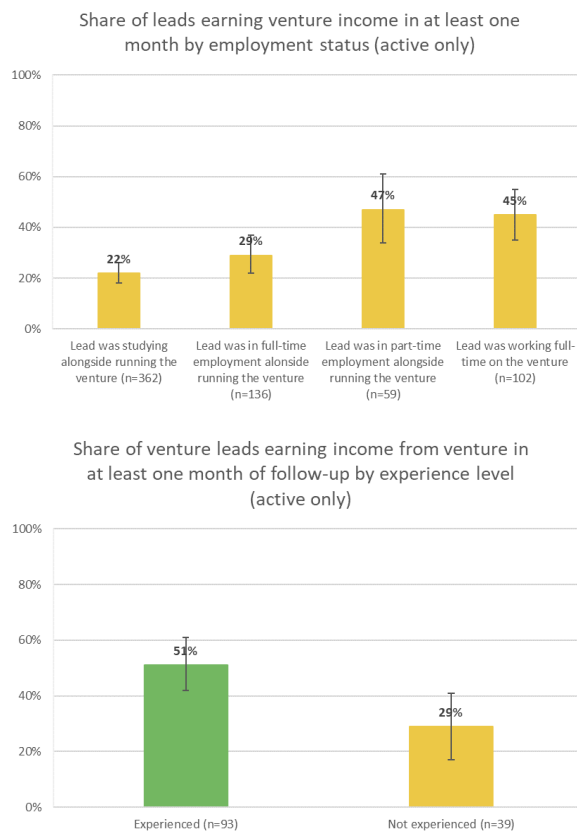

Figure A2.6: The graph on the top looks at the share of ventures whose lead earned income from the venture, by the lead's employment status. Twenty-two percent of leads who were studying while running their venture earned income in at least one month. Twenty-nine percent of leads employed full-time while running their venture earned income in at least one month. Those who did not have other full-time activities were more likely to earn income from their venture. Forty-seven percent of leads employed part-time

while running their venture earned income in at least one month and forty-five percent of leads who worked full time on their venture earned income in at least one month.

In the graph on the bottom, 51 percent of leads with experience earned income in at least one month versus 29 percent of inexperienced leads.

Entrepreneurs managing their ventures in-person were more likely to earn personal income from their venture than those managing their ventures remotely. Interestingly, beginning in the early days of the pandemic, individuals managing ventures remotely were consistently less likely to report earning income from their venture. In contrast, the share of those managing in-person who reported earning income grew consistently.

Figure A2.7 Share of leads of active ventures earning personal income from their venture, by management location

Share of leads earning income from venture by management style and month (active only)

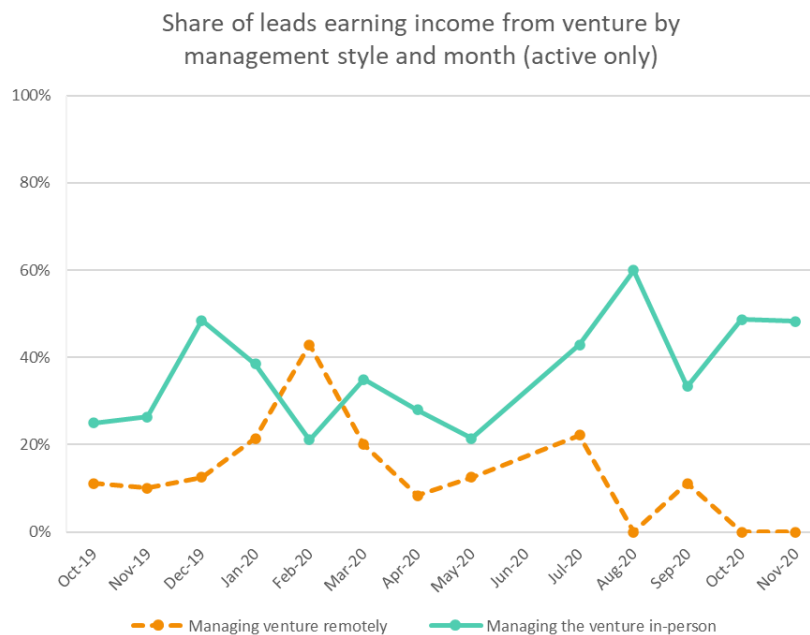- - - Managing venture remotely ——— Managing the venture in-person

Figure A2.7: The share of leads earning personal income from their ventures based on location varied by month. For all but one or two months, the leads running their venture in-person earned more personal income than those running their ventures remotely. For

leads who were managing remotely, there is a steep upwards trend in the share who earned income between October 2019 and February 2020. This fell dramatically from a high of over 40 percent to 10 percent by April 2020. The share of ventures whose leads earned income from the venture, and managed remotely, stayed low for the remainder of the study. The trend is reversed for those who managed their ventures in-person. After the initial lockdown period of March to May 2020, the share of ventures managed in-person who earned income grew from a low of 20 percent rising to 60 percent by August 2020 and stabilized around 50 percent by the end of the study in Nov 2020.

To understand profitability over time, we asked venture leads if their costs exceeded, equaled, or were less than their revenues. While many leads preferred not to answer, resulting in very small sample sizes, the impact of COVID-19 is evident in the data. Over the March–May period of the initial lockdown, the share of those making a profit plummeted with a corresponding jump in those reporting losses. Interestingly this trend reverses in subsequent months, with growth in the share of ventures reporting profits. This is further evidence that financial recovery (in personal income and profits) preceded recovery in hiring during the pandemic.

Figure A2.8 Share of active ventures reporting profits and losses
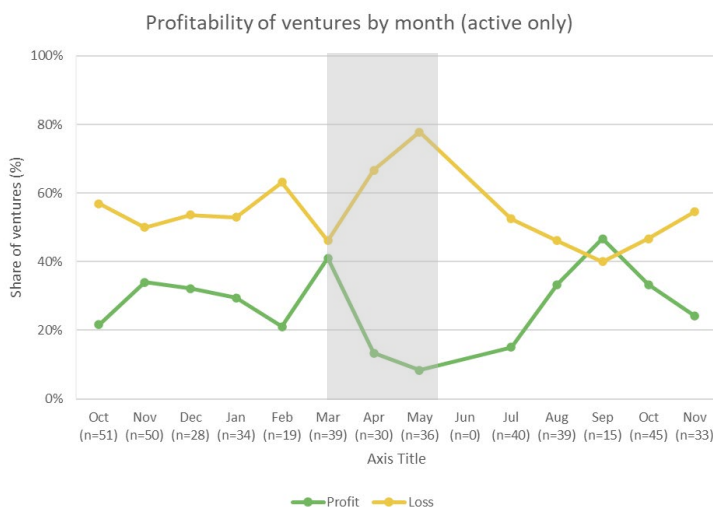
Appendix 3: Consent and terms & conditions

Scholars Entrepreneurship Fund Digital Diaries

The Scholars Entrepreneurship Fund ("**SEF**") Digital Diaries Project (hereafter referred to as the "**Project**") is a data collection project conducted by the Mastercard Foundation ("**Foundation**") Scholars Program and led by Dr. Uttam Bajwa (ubajwa@mastercardfdn.org).

These Terms and Conditions apply to all participants in the Project. By consenting to these Terms and Conditions, you agree to be bound by them and the documents referred to in them.

SEF Digital Diaries Project

The Project is designed to gather information about the experiences of approximately 15 individuals in SEF to support future program development, engage Scholars and Alumni in entrepreneurship programs, and share insights about SEF more broadly through reports, scholarly articles, and multimedia outputs.

Each Participant will be given a $300 USD honorarium to acknowledge the time and effort required for this Project.

The Project will begin on **November 23rd and end on December 5th.**

Participant Responsibilities

You agree to participate in the Project as follows:

- Download the Indeemo mobile app to your smartphone, laptop, or other device and respond to daily "prompts" (or questions) that may include requests for stories, photos, or videos over a two-week period;

- Provide content to the Foundation in response to prompts or questions, in the form of text, images, video, audio or other media, as requested; and
- Take part in a 60-minute virtual focus group to talk about your experience taking part in the two-week digital diary.

You agree that you will comply with all applicable laws in relation to your use of Indeemo and will not access, store, upload, distribute or transmit through Indeemo any harmful computer program such as a virus or malware or any content during the course of your participation in the Project that:

- is unlawful, harmful, defamatory, obscene, threatening, pornographic, harassing or racially or ethnically offensive;
- facilitates any illegal activity;
- promotes unlawful violence in any way;
- is discriminatory based on race, gender, ethnicity, religious belief, disability, sexual orientation or any other illegal activity;
- causes injury or damage to any person or property; or
- infringes the intellectual property rights, privacy rights or other rights of any third party.

The Foundation acknowledges that even if you agree to participate now, you can withdraw at any time or refuse to answer any question without any consequences. You can also withdraw your permission to use data from your participation in the project within two weeks of the focus group, in which case the material will be deleted. While most participants should find the discussion and prompts interesting and thought-provoking, if, however, you feel uncomfortable in any way during the process, you have the right to decline to answer any question or prompt.

You agree that when you use your mobile phone, laptop, or tablet to provide content through the Indeemo app, that the mobile network provider may charge you, depending on the contract that you have. If you are not the bill payer for your mobile device, you hereby confirm that you have obtained the bill payer's permission for your device to be used for this Project.

Privacy and Data Protection

By submitting your personal data to the Mastercard Foundation (e.g., name, email address, telephone number), you agree to your personal data being collected, used, and stored by the Foundation for the purposes of organizing and administering the Project, facilitating your participation in the Project, and contacting you about matters relating to the Project.

You hereby consent to the Foundation's use of the Indeemo app to collect, process, store and disseminate the content that you provide to the Foundation through the Indeemo app (e.g., photos, videos, screen recordings, text and comments) (which may include personal data), and subsequently export such content from the Indeemo platform. You agree to the Indeemo Privacy Policy, as made available by Indeemo and amended by Indeemo from time to time.

The Foundation will use your content and contributions in the diaries and focus groups for the purpose of supporting future Foundation program development, engaging Scholars and Alumni in entrepreneurship programs, and sharing insights about SEF more broadly through reports, scholarly articles, and multimedia outputs.

- You agree that your content and contributions may be used in confidential form for written reports or scholarly articles about the Project that are shared outside of the Foundation. The Foundation will ensure confidentiality by assigning a letter, number, or pseudonym to you and disguising details which could reveal your identity or the identity of people you speak about or otherwise refer to.
- You also agree that your photos, videos, and edited stories may be used publicly by the Foundation's Communications Team to share insights about entrepreneurship programs for young people. Any communications materials will be developed within 2 years of the Project's completion and

you will be given an opportunity to review any materials that include your content, before they become public.

The Foundation will retain your content on the Indeemo platform for the duration of the Project and for 6 weeks thereafter. When the Project comes to an end, the Foundation will export your content to encrypted password protected Foundation cloud storage located in Canada/USA and will retain your content and focus group contributions for 2 years.

The Foundation will comply with its Privacy Policy (https://mastercardfdn.org/privacy/) in respect of any personal data that you submit to the Foundation or that the Foundation obtains from you.

Please ensure the content and focus group contributions you share only include people, places, and things you are comfortable with sharing and have the right to share. You agree that you will not submit to the Foundation personal data about any person other than you, unless you have obtained such person's explicit and freely given consent to share their personal data with the Foundation for the purposes of this Project and in accordance with these Terms and Conditions.

Intellectual Property

You agree that all intellectual property rights in the content you provide to the Foundation through the Indeemo app (e.g., photos, videos, screen recordings, text and comments, etc.) and contributions you provide through focus groups, will be owned by the Foundation, unless you withdraw your permission to use your data in accordance with the "Participant Responsibilities" section above.

General

The Foundation reserves the right to change any aspects of the Project at any time, and the right to immediately (without notice) prevent or suspend your participation in the Project if you do not comply with any part of these Terms and Conditions or any applicable law, or for any other reason in our sole discretion.

The Project may involve you going out into your community to capture content to tell your stories. The Foundation shall not be liable for any injury, death, damage or loss of property arising from or in connection with your participation in the Project, save and except in the event such injury, death, damage or loss of property has been caused by the negligence or wilful misconduct of the Foundation, its employees, agents, volunteers, members, officers or directors.

You understand that these Terms and Conditions are complete and supersede all prior or contemporaneous communications or understandings between you and the Foundation relating to the Project. These Terms and Conditions shall be construed in accordance with and governed by the laws of the Province of Ontario and the federal laws of Canada applicable therein.

Acceptance

I have had the purpose and nature of the Project explained to me and I have had the opportunity to ask questions about the Project. I understand that I am free to contact any of the people involved in the research for further information.

I have read, understand and agree to the Terms and Conditions above. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this Project.

_____   Signature   (digital   is   ok)   Date
_____ _____ Printed Name

Appendix 4: Diary instrument

1. Please share a 3-5-minute selfie video! Tell us a bit about who you are and what is keeping you busy – particularly during these challenging times. Describe your venture! (e.g., What is its purpose? Where is it located?) We're excited to learn more about it.

2. What's happening with your venture this week? (It's ok if you're not working on your venture! Tell us why, what else you're busy with, and what stage your project is at)

3. Why did you decide to take part in the Scholars Entrepreneurship Fund? How did you choose your project? Would you have pursued this project without SEF funding?

4. Send us a video – What contributions has your venture already made or could make someday? It's ok if you're not sure or if your dreams seem far away. It's also ok if you don't see your venture contributing – tell us why! (To your family? Your community? To your country? To you personally and your future?)

5. What does an entrepreneur look like? Send us a picture of you working on your venture & being an entrepreneur.

6. Video: Tell us about your team! Who is involved in the project? Have you had any other help? Mentors, family members, employees, other community members, or someone with good advice? How is your business structured?

7. Send us a picture of your venture at its best. It can be anything related to your work so far, but we want to see you or your venture in action.

8. This week dream big! Where do you imagine your venture in 5 years? Or maybe you will be working on a different venture, project, or career direction – tell us about it!

9. Starting a venture is very complicated! We'd love to hear about the factors in your city, country, region, and industry that are supportive of entrepreneurship and those that have made it challenging. Did anything surprise you?

10. Tell us a story or send a picture showing a time when your venture was struggling.

11. What advice would you give others thinking about entrepreneurship, based on your own experience? If you could change one thing and do it over what would it be and why? Optional: is your work on this venture, or work more broadly dignified and fulfilling?

12. As an entrepreneur, you are exercising leadership. What does being a leader mean to you? What kind of leader are you? (E.g., how do you approach failure?) Optional: send us a picture of a leader who inspires you! It can be someone you know or someone famous, fictional, or historical. Why do they inspire you?

13. What would your dream entrepreneurship program include? If you could change SEF in any way, what would you keep? What would you change? What kind of program would help you in your next steps?

14. In the past two weeks, what were the biggest successes with your venture? Did any challenges come up? How did you deal with them? Which ones were out of your control? (Optional: Are there any other project successes you'd like to highlight?)

15. We've learned a lot about you and your venture in the past two weeks. **What else** would you like us to know?

Appendix 5: Focus group instrument

Preamble

- Thank you for your participation in the SEF Digital Diaries, it has been incredible seeing your responses.

Purpose of this focus Group

- We have invited you to this Focus Group to ask you about three main things:
    - Your overall impression of this Diaries experience. What worked well and what could be better?
    - Some things we learned from the diaries that we would like to learn more about from you.
    - Anything else you would like to share!
- We will use what you share to:
    - Help us plan future research projects
    - Help us understand what we've learned from the diaries
- The insights may be combined with the monthly surveys and the diaries in any reports as well.

Confidentiality

- For these focus groups today, everything you share will be confidential. That means we will not associate anything you say with your name and it will not be associated in any way with your diary entries. We would like to take notes and record this meeting. The recording will be kept for a few days and used to make sure our notes are up-to-date and then the recording will be deleted.
- Because we are asking for confidentiality, that means everyone on the call must agree to keep what is said here private.

Some shared expectations

- There are no right or wrong answers
- There is no need to give us the answers you think we want. We welcome anything you can share about your experiences – even negative things.
- You do not have to speak in a particular order, but we may call on you to make sure you are included.
- That means when you do have something to say, please say it! We want to hear from everyone.
- You do not have to agree with the views of other people in the group.
- But we still must be respectful of everyone here, which means listening, not interrupting, and ensuring everyone has a chance to speak.
- **What is shared in our zoom chat, won't leave our zoom chat.**

Does anyone have any questions?

Do we have your permission to take notes and record this meeting?

Do we have everyone's confirmation that you agree to keep everything we share today highly confidential and private?

****Start Recording

Semi-structured questions

Introduction

1. First, let's go around quickly and introduce ourselves. Please just say your first name and do this icebreaker - if you could choose anything, what would you want your superpower to be?

2. Let's go around one more time and you can share where you held your scholarship and what your venture is.

Digital Diaries

3. How was your overall experience with the Digital Diaries project? Let's start with what you think **worked well**.
    a. *Why do you think this worked well?*
    b. *Would it have been different if [some factor] was different*
    c. *Was it your first time participating in a project like this?*
    d. *Did you like the one question per day model? Would something else be better?*
    e. *Were you comfortable with the questions?*
    f. *Were you comfortable with the app?*
4. What did not work well? In other words, **what were some of the challenges**?
    a. *For instance, was language a barrier?*
    b. *Was the timing a challenge (e.g., during exams)? What would be a better time for you?*
    c. *Did you have challenges with data?*
5. Did the onboarding prepare you for the diaries experience? What do you wish you'd known before you started?
    a. *Did you think the honorarium was fair?*

Some preliminary insights

Now we're going to share a few things that came up in the Diaries, to get a sense of your perspective on them today.

Dignified and fulfilling work:

6. You may have heard the concept "dignified and fulfilling work" during your time as a Scholar. Would you consider your work as an entrepreneur "dignified and fulfilling"?

a. *Why?*

b. *What does "dignified and fulfilling" mean to you?*

c. *When is it **not 'dignified and fulfilling"?***

d. *We know that you don't always find it dignified and fulfilling! When is it **not** satisfying or does not make you happy?*

e. *Would you be interested in starting another business in the future?*

7. We also know entrepreneurship involves risk. What do you think about the risk of being an entrepreneur?

   a. *How do you prepare for that kind of risk?*

Impact:

8. We asked you about what your project has achieved, your dreams for the project, and the intended impact of your project. We want to follow-up again. What does social entrepreneurship mean to you?

   a. *Why?*

   b. *What is the role of community and give-back in your project?*

   c. *What do you think is the potential impact of projects like yours to the future of your country and Africa?*

   d. *What are some potential negative consequences from your project or similar ones?*

   e. *What are you dreams for your project?*

Designing a better entrepreneurship fund:

9. We asked you what you wish had been part of SEF and what your dream entrepreneurship fund would look like. We heard you were interested in learning business skills (like project management), mentorship, and networking with other young entrepreneurs. Would you agree with that?

   a. *Are there any other features you are interested in?*

b. *When is the best time to take part in an entrepreneurship fund? At what stage of your transition from school to graduation?*

10. What kind of entrepreneurship program would support you now and in the next stages of your business or career?

a. *How do you think young people should be introduced to entrepreneurship?*

Time permitted: COVID-19:

11. We learned that COVID-19 has been extremely challenging for everyone taking part in this project. The biggest challenges seem to be around disruptions to your regular lives, major changes to the economy, and challenges related to stress and mental health. **Do you agree with those challenges?**

a. *If you do (or if you do not) why?*

b. *What other challenges do you think we should highlight?*

12. We also learned that you have been remarkably innovative and creative about responding to COVID-19. What has kept you motivated?

a. *Were there moments when you felt less motivated?*

b. *What resources, networks, people have you drawn on to stay motivated?*

Wrap-up

13. We've asked you a lot about entrepreneurship. But we also know that you're interested in other things and may imagine yourself doing other projects, careers, etc. in the future. Tell us a bit about your other aspirations! Or even just other things that you're interested in now.

14. Before we end**, is there anything else you'd like to share? Is there something you wish we'd asked you?** *For instance, about the Diaries experience, SEF, entrepreneurship generally, or anything really?*

Appendix 6: Reflections on methodology

"Documenting my start-up journey through the diaries made me realize how far I have come."

Focus Group Participant

The primary aim of the post-diaries focus groups was to explore the relevance of this methodology for participants. Participants were quite positive about their experiences. One shared, "I think I'm not the only one who enjoyed this experience. Normally when it comes to research, I'm a bit skeptical when I'm a respondent." Most challenges were related to the Indeemo platform itself — feedback that was also shared with the provider and which they were very receptive to.

Challenges

- **The timing:** While the timing at the end of November gave the research team an opportunity to take a closer look at how participants were balancing entrepreneurship with their studies, it was difficult for participants. This is a key consideration for future projects adopting this approach.

- **Technical issues:** Participants would have liked the option of direct messaging the research team and found it difficult to see which tasks they had left to complete. They would have also liked the opportunity to edit their notes and comments and felt limited by the two-minute video length, which could be extended on future projects.

What worked well

- **Pre-Diaries webinar:** Participants shared that they felt well-prepared and understood the overall process. "I think for me, I understood everything in the onboarding. For me everything was so clear. I didn't have any challenge to answer the questions and follow everything."

- **Honoraria**: The participants were satisfied with the $300 honorarium and several shared that they reinvested it in their ventures. They also shared that they would likely have participated anyway because of their positive relationship with the Mastercard Foundation Scholars Program, but that the honorarium was a positive bonus. For instance: "The entire project even without the honorarium would have worked. I would have responded gladly." "There is so much the Mastercard Foundation has done for us. Giving back through the survey wasn't really an issue." One said that it made her take her contributions more seriously: "The incentive gave you a sense of responsibility, in a way."

- **The methodology:** "I felt it was human-centred." Similarly, others told the team: "It was a really effective way of measuring how far we've come. Through the videos and the notes … not just one form … I felt you could really tell more than you would have if you just wrote it down." The participants were also comfortable with the questions themselves, for instance: "I don't think I had problems with any of the questions. They were pretty straightforward. Nothing like someone is trying to do some tricks on you. They were ethical questions." "It was really exciting to wake up in the morning and find a question and then have to think about it."

- **Multiple formats** Participants appreciated being able to use videos, photos, and text to share their experiences. Many specified that they preferred video

over text, and vice-versa. For instance: "I didn't really like the writing part. The video really got me going," and "I enjoyed the writing pieces because I prefer to write. The videos were kind of hard." The choice of media should align with the type of question being asked, but future efforts may experiment with allowing participants more flexibility.

· **Balance between structure/flexibility:** Participants appeared comfortable with the daily questions but were also grateful that questions were shared in advance. Only one participant requested a stricter schedule to help them stay on track. For instance: "I was mostly one day late in submission. The other day I'm thinking about it. And the next day are answers." Several mentioned that their earlier videos were time-consuming to produce and that, as they became more comfortable with the technology and being on video, each question took 15-minutes or less to answer. Participants were positive about the shorter-term more intensive approach to data collection — 14 questions over 14 days. Nevertheless, there may be opportunities to experiment with this intensity, for instance one response a week for several months.

· **Responsiveness of research team:** Participants enjoyed the comments and queries to their posts and this responsiveness made them feel heard and that their responses were appreciated. "Something I like was the feedback after every task. After answering the task … it felt more like a conversation." Another shared, "I felt more willing to be vulnerable in responding to the question."

· **Opportunity for reflection**: Participatory methods often support self-reflection among participants, and the Diaries questions were designed to encourage this practice, but this was an important secondary benefit of the Digital Diaries project. This also meant participants enjoyed the process and

found it valuable for their own needs. This is a highlight that the team behind the Digital Diaries was particularly excited about.

> "Knowing that people won't judge me or judge my answers or response. Even when people were commenting … They were actually trying to understand your experience. Not from a perspective of 'I think you're this and this wrong', and [instead] more interested in learning how you're doing things. How do you do it. I was so comfortable."

Ten considerations for rapid youth-centred qualitative learning

1. **Honouring participant input**: Participants invited the research team and the world into their private spaces. This is a precious gift. Though videos may have been less polished or had sound quality issues, they were all frank, insightful, and important contributions to new knowledge. This was a core value for the entire research team and was reflected in all engagement with participants.

2. **Legal review and ethical rigour**: One way this care was demonstrated was through a clear and carefully developed consent process.

3. **Careful preparation**: The pre-Digital Diaries webinars and email exchanges were important for ensuring participants understood why the project was taking place, expectations, and what the results of the project would be. The team made a concerted effort to ensure participants understood the Terms and Conditions.

1. **Considering barriers to participation**: All participants were tertiary level Scholars or alumni. This meant they had a high level of comfort with technology. Nevertheless, the team tested the tool in advance and provided

some basic training on the tool. The bigger concern was financial barriers to participation, particularly during the COVID-19 pandemic. Participants were able to participate via laptops, but they were also provided the honorarium in advance of the Digital Diaries to cover the costs of data, time away from other responsibilities, and, if they wished, the cost of a smart phone.

2. **Participatory practices from collection to knowledge mobilization**: From inception to the final report, the project took approximately six months to complete. With a slightly longer timeline, including young people with experiences of entrepreneurship in the design would have made this genuinely participatory. The methodological approach centred participant experiences and used those words to guide analysis and reporting. The follow-up focus groups were designed to unearth any challenges or negative feedback about the experience. Finally, participants were also given the opportunity to review the entire draft report. Participants have also been assured that any future communications products or reports will be shared with them for input prior to being shared externally.

3. **An open line of communication with participants:** The team actively engaged with participants before the Digital Diaries to ensure they had the tools they needed to take part, but also prioritized responsiveness during the data collection period. The team made an intentional effort to comment and ask questions to learn more, but also to acknowledge participants' engagement. Participants were told when to expect future communication, what its contents would be, and what the team's timelines were throughout the process.

4. **Including new Scholar & alumni voices**: Because the participants were recruited from an anonymized sample of SEF winners, most participants had not been profiled by the Mastercard Foundation in the past. "I really

appreciate being given the opportunity to be in the spotlight. Aside from the fact that it gave me the chance to reflect how far I've come after receiving the funding."

5. **Right-sized sample:** Participatory approaches to data collection are necessarily time-intensive and require meaningful engagement with the participants and the stories they share. This two-week study with 15 participants produced over 225 videos, photos, and written narratives, thousands of comments, and six hours of focus group notes. This is a considerable effort compared to quantitative surveys. While this kind of project could easily be scaled-up, too large of a sample would necessitate quantification of the data or lead to more one-dimensional analysis, potentially losing the value of a narrative-based participatory approach.

6. **Building the right cross-functional team**: The project benefitted from a very wide variety of experts at the Mastercard Foundation. The team itself included individuals experienced with designing and leading qualitative research projects — particularly ethnographic studies — and individuals with experience in youth engagement and safeguarding.

7. **Team reflection and learning**: As the team members had different expertise, building in regular training and reflection sessions through the process — particularly during data collection — was helpful for building the entire team's capacity and addressing challenges.

Appendix 7: Advice to other entrepreneurs

Ten pieces of entrepreneurship advice from SEF Digital Diaries Participants

"The advice I'd give someone who was about to start an entrepreneur journey is that they should just do it." **– Nicole**

"The best advice I can give to entrepreneurs based on my experience is that no matter what, you should always be resilient in the face of adversity, in the face of failure." **– Echo.Mike**

"The first question is what do people really need? When you're able to answer that question, I think you can progress." – Emerald

"I would probably say that entrepreneurship demands that one has an abundance of patience." **– Takunda**

"For anyone who wants to set the business, I advise him or her to work hard, to have good communication skills. To be a good communicator, to also be able to take risk." **– Suly**

"Also seek mentors in any industry that you want to get into, look out for the top five people and let them mentor you. You have no idea what mentorship can do to your entrepreneurship journey." **– Nanah**

"Be flexible with your ideas, don't be so fixated on one idea that you forget or refuse to listen to what actual customers are telling you. You might start out that you want to sell oranges. You hit the market and you realize Oh my customers actually need apples. Give your customers what they want. If you're not flexible, you can't do this, so be flexible." **– Nanah**

"Talk to anybody about what you're doing and why you're doing it. It doesn't matter whether it's to your family members or friends or people you meet at a conference, or you know someone you share public transportation with. Just talk about your idea all the time, because fast it helps you improve your articulation of the idea itself. And second, you never really know who you're talking to, right?" **– Victoria**

"Work on a venture that you are excited to work on. Passion and interest are important ingredients for having an enjoyable entrepreneurship journey and this is something that you'll be working on for a long, long while and can be a lifelong career." **– Ama**

"The biggest mistake that I did was to look for good people to be my team members, in actual fact I was not supposed to look for good people, but I was supposed to look for the right people." **– Destiny**