

Monthly Report - May 2023

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Ministry of Federal Education & Professional Training

Government of Pakistan



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Executive Summary

STEAM Pakistan is a multi-strand project aimed to improve STEAM education through a phased approach. Its expected outcome is to improve STEAM learning for 5 million students, build the professional capacity of 100,000 teachers and revamp 13,000 high schools all across Pakistan in the next 5 years.

The monthly update for the program will entail updates on all work streams and strands. Major milestones achieved during the month of May 2023 include:

- 1,082 STEAM partner schools have signed up for the program as of May 31, including 271 sign ups in May.
- An orientation session was held for the senior management of the Sindh Education Foundation (SEF) on 3rd May, attended by 41 participants from multiple functions.
- 325 focal persons and head teachers participated in STEAM Partner School orientation sessions from 158 schools in 12 districts of Sindh and 2 districts of Gilgit Baltistan.
- 8 Safeer sessions were conducted in government schools engaging over 391 students (54% female, 46% male) in Islamabad, Karachi and Lahore.
- STEAM Pakistan facilitated content curation and participation of government schools at the Mathematics Summer Camp at IBA scheduled in June. A Game Design Workshop in collaboration with Girls Make Games (GMG) is also being planned to be held at IBA Karachi in July.
- A detailed work plan was shared with the Additional Secretary, SELD for the development of Minimum Standards in Education (for Sindh). The meeting resulted in follow-up conversations between STEM Policy Unit Sindh & JICA to firm up the plan of action for Volume I.
- Gilgit Baltistan Policy Unit facilitated a 4-day workshop hosted at School Education Department Gilgit-Baltistan on SLO development and assessments.
- 2 consultative sessions were held in Punjab (Lahore and Multan) with a total participation of 31 teachers and head teachers. The sessions focused on program inputs regarding high school transformation, school-based CPD and science activities/laboratories.
- A learning visit to Tareen Education Foundation (TEF) schools in Lodhran was undertaken by the STEAM Pakistan team, to learn from their experiences and to explore avenues for collaboration.

Moreover, the program activities and outputs are being tracked against deliverables for the purpose of monitoring and evaluation. The monthly STEAM report will contain an overview of the program outputs and the challenges encountered during implementation.



Project update - May 2023

This section of the report will include strand-wise updates for the deliverables covered within the month of May.

Learning

This section will provide updates on partner school's status as of May 2023 by geographical coverage, level of activities, student and/or teacher engagement, an update on training/fresher sessions, orientation sessions, and/or portal development.

1,082 Government Schools Engaged

61 Districts Covered

17,479 Students Engaged 67% Girls, 33% Boys

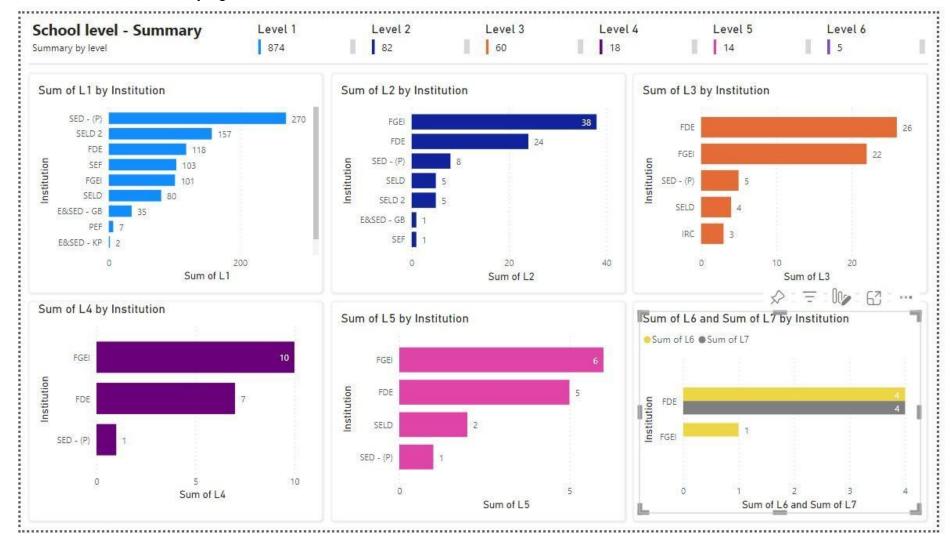
275 STEAM Clubs

1. Partner Schools' Highlights

A. Journey to Date

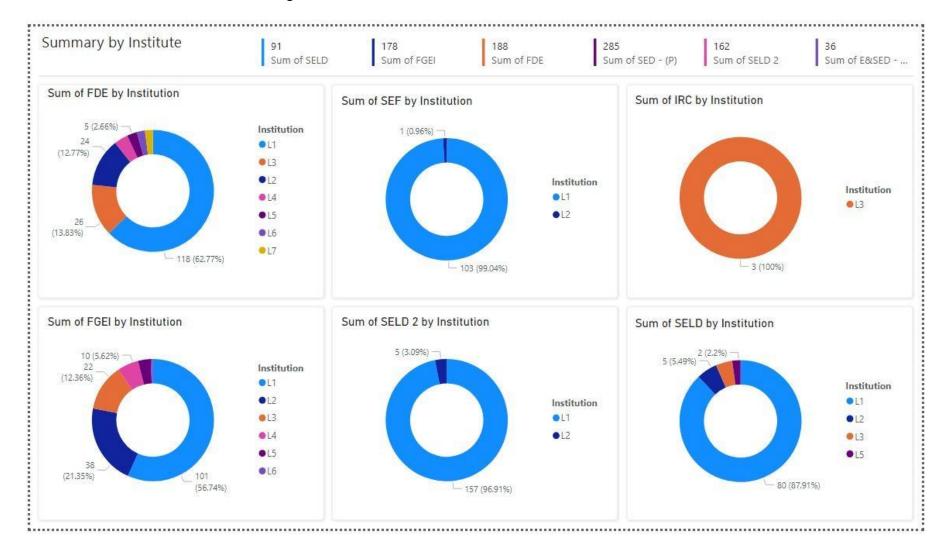


B. Level-wise progress*



^{*}Note: Level 1 for SELD and SED Balochistan includes schools which have only registered as of now for illustration purposes. Moreover, "SELD" schools are following the 5-level truncated journey while "SELD 2" schools are following the complete 10-level journey.

C. Institute/Partner-wise Progress*

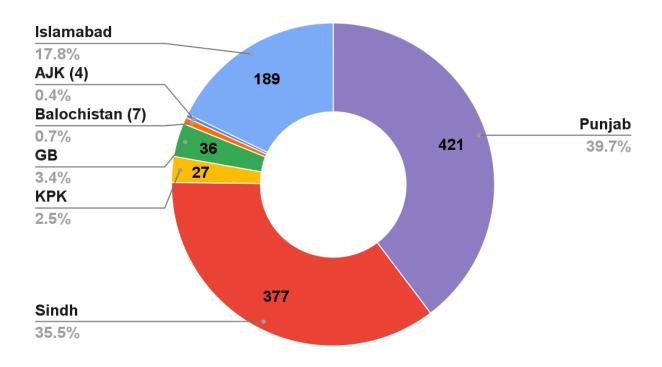




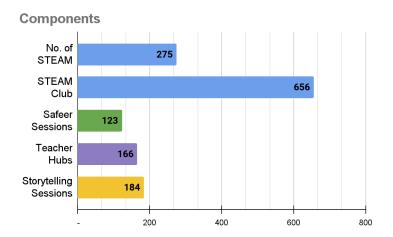


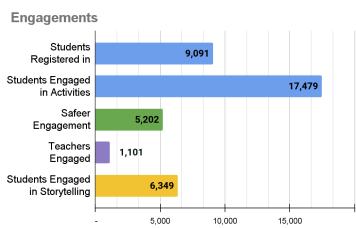
*Note: Level 1 for SELD and SED Balochistan includes schools which have only registered as of now for illustration purposes. Moreover, "SELD" schools are following the 5-level truncated journey while "SELD 2" schools are following the complete 10-level journey.

D. Region-wise partner school distribution



2. Activities in partner schools







2. Orientations - SED Gilgit Baltistan

In-person orientations were held for 2 districts in Gilgit Baltistan attended by 70 representatives from 39 schools. The details for the sessions can be viewed below.

Date	Target Districts	No. of Schools	No. of Participants
08-May-23	Gilgit	26	44
09-May-23	Skardu	13	26

The notification for the orientations can be viewed here.

3. Orientations - Sindh Education Foundation

In-person orientations were held for 12 districts in Sindh with the senior management of the Sindh Education Foundation (SEF) in three locations/districts. The orientation sessions were attended by a total of 255 representatives from 119 schools. The details for the sessions can be viewed below.

Date	Target Districts	No. of schools	No. of participants
15-May-23	Karachi South, Karachi West, Karachi Central, Karachi Malir	28	96
16-May-23	Shaheed Benazirabad, Dadu, Hyderabad, Tando Allahyar, Tando Muhammad Khan	31	60
17-May-23	Mirpur Khas, Matiari, Jamshoro	60	99

4. STEAM Portal

STEAM Pakistan 'school portal' has been live since mid-August 2022. The portal supports content dissemination to schools via its landing page and assigns a dedicated account to each school. Focal persons from partner schools submit reports by logging in through a dedicated account. Development upgrades to the school portal are consistently taking place based on input from school teachers and the learning team.

Along with multiple other tweaks, following are significant developments for May 2203:

- 2023-24 reporting templates including their guides and journey are now live
- Incorporated institute tagging for schools that will now be registering



5. Helpdesk

A helpdesk has been set up to file queries from focal person of our partner schools regarding STEAM journey levels, activity ideation and the portal reporting mechanism. The helpdesk is functional across three avenues of communication.

- Schools can reach out with queries over WhatsApp (0300-0606063)
- They can reach out via email at info@mathsandsciene.pk
- Zoom helpdesk Tuesdays to Thursdays, 10:30 AM to 11:30 AM and 03:00 PM to 04:00 PM

6. Analytics for existing video content

Statistics for existing STEAM Pakistan content on YouTube can be viewed below:

Month / Cumulative	Modules	Views	Hours Watched
May	0	3,136	78.5
Cumulative	34	15,722	404.9

7. Additional activities

Other activities the learning team has been involved in for the month of May are as follows:

Workshop:	During the month of May, the learning team dedicated time towards development of a lesson planning workshop for teachers (tentatively scheduled for the summer-break).
SLO Shortlisting:	Mathematics and Science SLOs were shortlisted for learning assessment pilot testing to be conducted by the MEL team. This pilot testing will be a prelude to a baseline evaluation for learning outcomes and perceptions in 60 schools spread across Karachi, Rawalpindi, and Islamabad for grades 6 to 8.
FGEI Progress Report:	Upon request, a progress report was created for FGEI indicating performance of FGEI partner schools under the STEAM Pakistan programme. The report can be viewed here.
Pedagogy Course:	Worked on developing MCQs for MoFEPT's online pedagogy course, which are based on how-to videos uploaded by STEAM Pakistan.
New Journey Video:	A video is being developed as an instructional guide for schools to get familiarized with the STEAM Pakistan journey 2023-24.



STEAM Safeer

STEAM Safeer component of the program aims to inspire students and connect them with skilled professionals who use STEAM concepts on a daily basis. Through sessions, STEAM Safeer exposes students to available in-school and out-of-school resources in the form of mentors who share their experiences, expertise and achievements to inspire and motivate them. The following STEAM Safeer sessions were held in the month of May:

Date	Name	Designation	Organization	School	No. of students	Link to highlights
09-May-23	Wahaj Siraj	CEO	Nayatel	IMCB G-6/2	120	<u>Link</u>
15-May-23	Muarij Kerio	Deputy Manager HR	Pakistan Cables	FG Public School Karachi Cantt (PS Kci Cantt)	30	<u>Link</u>
16-May-23	Salman Anjum	Deputy Manager Sales	Pakistan Cables	FG Minwala Public School (Girls) Karachi Cantt	30	<u>Link</u>
16-May-23	Usama Azmat	Manager Operations	Nayatel	FG SMHS (NH) Public School (Girls)	50	<u>Link</u>
26-May-23	Zeeshan Ali	Government Solutions Manager	SICPA Ink	FG Abbysinia public school boys (lines) Karachi cantt	30	<u>Link</u>
30-May-23	Alina Ahmed	Leadership Instructor	Lahore Literati School	FG model public school girls sarwar road lahore cantt	40	<u>Link</u>
30-May-23	Alina Ahmed	Leadership Instructor	Lahore Literati School	FG Public School Mahfooz Shaheed Garrison Lahore Cantt	44	<u>Link</u>
30-May-23	Minal Saeed	Marketing Manager	IMARAT Group	IMSG PM Staff Colony G5	47	<u>Link</u>

Newsletter

The newsletter for April issued in May can be viewed <u>here</u>. Previous monthly STEAM Safeer newsletters can be accessed <u>here</u>.

Dedicated webpage and portal

A dedicated landing page for STEAM Safeer and a back-end portal has been designed and developed. The landing page has been live at www.steampakistan/safeer since January 2023.



Policy Deliverables

Sindh

Minimum Standards Document, Sindh

A follow-up meeting was held with Dr. Fouzia and her team. Dr. Fouzia's office also invited JICA to work with STEAM Pakistan on the minimum standards. In the meeting, the Sindh STEM Policy Unit presented the outline of the document along with the work plan for one volume. As a next step to this meeting, STEAM Pakistan was scheduled to hold a meeting with JICA separately.

The meeting with JICA also took place in May. It was agreed that the starting point for developing these standards would be conducting a gap analysis of existing standards, legislations, frameworks, and rules in Sindh, and then build up from there. Both teams will work to understand what areas need to be worked on. As a next step, a new work plan will be drawn up.

Sindh Education Foundation Orientations

Orientations were conducted for a) senior management of SEF and b) school teachers and head teachers. The senior management orientation took place on 3rd May, the purpose of which was to give a brief overview of the STEAM Pakistan program to those overseeing it in schools. The orientation was attended by 41 participants from 16 districts in Sindh. These orientations led to orientations hosted for schools. More details about school orientations can be found under "Orientations - Sindh Education Foundation" under the "Learning" section.

Gilgit-Baltistan

Workshop

A workshop was organized by the Board of Elementary Examination and Training and Staff Development Center, Gilgit Baltistan inviting subject experts from three different regions for centralized syllabus break-up and formative assessment tools for grade 5 and 8. The workshop took place from 24th to 27th May and was attended by 35 participants. The agenda for the workshop can be viewed here. The office order for those nominated to attend can be accessed here.

SLO development and assessment tools are almost finalized. As a next step, meetings or workshops with Punjab Examination Commission will be scheduled to get their input as well.

Supporting E&SED in development of a MEL framework

A first draft of the monitoring and evaluation framework for existing initiatives of the E&SED, Gilgit Baltistan has been prepared. This includes MEL framework for the following programs:

- School Meal Program
- HITECH LMS project
- Computer Education, STEM and Entrepreneurship



STEAM Partner Schools

In-person orientations for 20 male and 15 female government high schools in Gilgit-Baltistan were conducted in May. More details can be found under "Orientations - E&SED Gilgit Baltistan" under the "Learning" section.

Academic Calendar

The Gilgit-Baltistan Policy Unit assisted in the development and finalization of the new academic calendar (viewable here) and centralized timetable (viewable here).

Punjab

Orientation sessions

A proforma was sent to 40 shortlisted schools in all districts of Punjab, for the nomination of focal persons for future STEAM trainings. It can be viewed here. A training report was also shared for virtual orientations held in the month of April for schools in 6 districts of Punjab. The report can be accessed here.

Letter of Understanding

An LoU for technical assistance to PMIU-PESRP was shared with them. This LoU was amended as per the recommendations of the Law Department and sent back. A letter by the STEAM Policy Unit in Punjab was sent to the department to sign the revised LoU. The letter can be viewed here.

Consultation sessions

STEAM Pakistan organized consultative sessions with government school head teachers in Lahore and Multan on 18th May and 20th May 2023 respectively. The consultative session spanned 4 hours including 2 workshops in each city. A total of 14 and 17 head teachers/teachers participated in Lahore and Multan respectively. The primary focus of the consultative session was on high school transformation, specifically on themes such as community/parental engagement, revisiting science labs, structuring a system of guidance/support mechanism for teachers, and disbursing the Non-Salary Budget (NSB) based on the needs and priorities of schools.

The objectives of the consultative sessions were to gain insights from head teachers as to the challenges they face and the interventions taken to enable a learning environment in Punjab schools, informing STEAM Pakistan's activities. The thematic analyses and highlights for these sessions can be accessed here.

Learning visit to Tareen Education Foundation, Lodhran

On 19th May, 2023 STEAM Pakistan team visited Tareen Education Foundation (TEF) schools in Lodhran to understand TEF's reform delivery model in government schools. The school visits were followed by a consultation with the head teachers (government and TEF hired), teachers and program managers of the foundation. The objective of the visit was to understand TEF's



system of management, the challenges they face and learn from their experience. This trip would also allow the program to negotiate further possible collaborations/support in the future between TEF and STEAM Pakistan. The report for this visit can be viewed here.

Federal

Consultative sessions

STEAM Pakistan began rolling out a series of consultative sessions in Islamabad, Sindh, and Punjab to seek input on various policy deliverables in January. Last round of these consultative sessions took place in May in Punjab (Lahore & Multan). More updates about the consultative sessions can be found in the 'Punjab Section' above.

Budget note for FDE school financing

A meeting was held with the Secretary, Ministry of Federal Education and Professional Development on 11th April 2023. As a follow-up to this meeting, the following are the updates for the month of May:

- <u>Budget utilization</u>: FDE requested that data is still being updated and they can share it
 once they update it. Meanwhile, a meeting took place with Joint Secretary, Shahid Iqbal
 and he urged that the program prepare a note based on data so he can take this forward.
- <u>Stocktake</u>: The program is working on setting up monthly stocktakes with Mr. Shahid lqbal from this month.



Partnerships

University Partnerships

Overview

To date, STEAM Pakistan has signed LoU with a total of 12 universities and successfully on-boarded 15 other universities. 8 universities are actively conducting STEAM activities with their partner schools in various regions of Pakistan. An LoU is expected to be signed with the remaining universities, with NUST, COMSATS, Bahria University Karachi, and Habib University Karachi being in the highlight.

Sindh Higher Education Commission (SHEC)

A letter was successfully sent by the SHEC to member universities in Sindh to partner with STEAM Pakistan. The letter can be viewed here. The Commission received responses from 12+ universities and is awaiting further responses. Next steps include an orientation session for all universities deciding to join the program and share their academic calendars with proposed commitments.

IBA Karachi

From 5th June, a mathematics summer camp is scheduled to commence for 2 STEAM Pakistan partner government schools. This camp will be led by 2 IBA professors and accompanying students. 2 student interns will also be supported by STEAM Pakistan. Applications were received from 2 participating schools who were briefed by the program. 30 students will be attending the summer school at IBA.

Additionally, a game design workshop is planned to take place in IBA in collaboration with Girls Make Games (GMG), a partner for STEAM Pakistan as of May 2023. It is planned to take place on 1st July. Applications were received from 3 female and 1 male school. 80 students were shortlisted to participate by schools. Posters for the workshop were designed and disseminated by the program along with visiting the schools to introduce the workshop and encourage maximum participation. STEAM Pakistan is recruiting 13 students from IBA as facilitators who will be leading the workshop. Selected students will undergo a training session by GMG on 17th June.

NUST

Conversations with NUST have been on-going in the month of May. A consensus on the terms of the MOU is expected soon.

NED University

NED University related details can be found under "Pakistan Cables" under the "Corporate Partnerships" section below.



Updates on activities in universities

A major element of university partnerships is the range of activities that they undertake. These activities are designed to cultivate a close relationship between higher education institutions and schools. These could take the form of math circles, teacher baithaks, Safeer sessions, university tours, field trips, boot camps and so on. The details for these activities for the month of May can be found in the following section.

Math Circles

Date	Partner University	Session Lead(s)	School	No. of Students	Link to Highlights / Details
19-May-23	LUMS	Dr. Momin Uppal & Dr. Imran Cheema	20 schools	50	<u>Link</u>

Corporate Partnerships

Pakistan Cables

A meeting took place with Pakistan Cables on 23rd May to plan the second round of Safeer sessions. The company reached out to STEAM Pakistan to schedule a planning meeting. For their upcoming 70th anniversary, Pakistan Cables aims to commit 70 Safeer sessions. Pakistan Cables has been a very active partner and advocate of the STEAM Pakistan pushing the partnership with NED University. The company plans to support NED University tours for government schools by covering transport costs. Moreover, Pakistan Cables is supporting culture-related internships in Lahore and now are encouraging interns to conduct Safeer sessions as well. This has now been made a part of their internship requirements. Additionally, the company is exploring the possibility of sponsoring student visits to TDF Magnifiscience.

SICPA Ink

SICPA Ink conducted its first Safeer session in May. More details can be found under the "STEAM Safeer" section

Outreach to more corporate entities under STEAM Pakistan is still ongoing.

Partnership with national sports associations/bodies

A roll-out of a pilot in collaboration with the Chess Federation of Pakistan is expected once schools reopen in August 2023 after the summer vacations. The program development and review will be completed in June and July this year.



Partnership with organizations working with children with disabilities

The conversation with Karachi Down Syndrome Program (KDSP) is currently stalled due to senior management changes in the education and operations team. The partnership team is expected to reach out to KDSP's executive and senior leadership once the roles are filled to brief them about the cooperation conversations and finalize a timeline for the MoU and delivery of technical support.

Partnership with NPOs

Since October, Indus Resource Center (IRC) schools, under the Nisar Science Fellowship, have formally been inducted into the STEAM Pakistan journey and are receiving technical assistance as per protocol.



Communications

Below are the components of communication covered/released during the month of May 2023:

Analytics for social media channels

Platform	Posts	Accounts Reached / Profile Visits / Reactions	Engagements / Impressions	Followers	Sample Post
<u>Facebook</u>	13	13,698	19,175	3,772	<u>Link</u>
<u>Twitter</u>	4	1,211	5,966	670	<u>Link</u>
<u>Instagram</u>	6	2,681	3,653	1,357	<u>Link</u>
LinkedIn	10	63	1,651	518	<u>Link</u>
Platform	Unique Visits		Total Visits	Hits	
<u>Website</u>	4,077		5,938	225,18	37

Wins in discourse

STEAM Pakistan has been gaining visibility on multiple platforms which helps it gain credibility and recognition among wider audiences.

STEAM Pakistan on MoFEPT Website

The communications team held detailed discussions with the IT and Media teams at MoFEPT to create presence for STEAM Pakistan as a MoFEPT's initiative. As a result, both teams at the ministry provided their support to include STEAM Pakistan under the ministry's banner.

On the website, STEAM Pakistan is present under the following sections:

- <u>Initiatives:</u> Placed under the ministry's 'Initiatives' on the homepage as well as a designated tab on the drop-down menu.
- Quick links: STEAM Pakistan Schools Registration Portal that links to the schools' registration page on the website.
- <u>Latest news:</u> The press releases for STEAM Pakistan's MoU with NED University was featured under this section. Stories placed here will primarily be about the STEAM Pakistan's work in FDE schools. Details about these placements are provided in the section for media coverage.

Media Coverage

The first published press release was issued to the media by the press office of MoFEPT and Press Information Department (PID), MoIB. The press release was placed on the websites of both ministries and covered in English and Urdu newspapers and news websites.



Activity	Medium	Placements	Total
MoU Signing with NED	English Newspapers	3	
University	Urdu Newspapers	0	11
	News Websites (English + Urdu)	8	
Visit To TEF	English Newspapers	0	
	Urdu Newspapers	14	15
	News Websites (English + Urdu)	1	
Total N	26		

Social Media

Two significant activities frame the activities in May:

- 1. MoFEPT began to feature STEAM Pakistan activities on its Facebook page through their own posts, based on content developed by STEAM Pakistan;
- 2. Growth of the STEAM Pakistan LinkedIn page, which has shown that the audience on the platform is interested in the stories of school children in the STEAM program and Safeer Sessions. Link to the post on MoFEPT's Facebook page can be found here.

Notable follows

Influential personalities / public figureheads who have followed STEAM Pakistan in the month of May are highlighted below:

Name	Role	Organization / Entity	Profile
Favad Soomro	Head	Engro Foundation	<u>Link</u>
Shandana Khan	I(:F()	Rural Support Programmes Network (RSPN)	<u>Link</u>
Anjum Rehman	Head, Corporate Affairs	Sanofi Aventis	<u>Link</u>
Zeeshan Suhail	Social Impact Manager	Nestle	<u>Link</u>



Program Management

Gender Audit / Strategy

The purpose of the gender audit is to identify gaps (covering all aspects) in program design to implementation practices to help the program become gender sensitive and successfully deliver a truly transformational impact for all in the educational landscape in Pakistan.

In the month of May, the consultant visited government schools in Islamabad, Rawalpindi, Karachi, met with a NPO, corporate organization and key government counterparts. The gender audit report was shared with STEAM Pakistan and Malala Fund Pakistan on 15th May, which was followed by the Gender Strategy Learning workshop for the STEAM Pakistan team. This workshop was attended by Malala Fund Pakistan and STEAM Pakistan's representatives from various functions. The purpose of the workshop was to discuss programmatic and design elements that can be reviewed and revised in light of a gender equity lens.

As a next step, based on the gender strategy and the recommendations based on the audit, STEAM Pakistan will devise a gender action plan in June/July.

Monitoring and Evaluation

A meeting was held with the MEL team on 5th May to discuss the various instruments prepared and share feedback. Revised tools were then shared with the Program team and a second meeting in May was held on 15th May to discuss said tools. The final version of the tools were then shared on 24th May which were different than the expectations of the team. Follow-up conversations will be held with the MEL team to discuss the way forward. Additionally, the MEL team is expected to visit two Science Fuse schools as part of the third party M&E of their Program in June.

Monthly Stocktake Meeting

No stocktakes were held in the month of May.



Challenges and Mitigation Strategies

This section of the report will include critical challenges addressed during each month, and the respective mitigation strategy for the challenge. Dedicated efforts from all stakeholders will be required for timely delivery of program components within the revised work plan.

Challenges	Mitigation Strategy
Delay in the MEL team's delivery of the following: Perception survey Academic assessments The tools were submitted on 15 th April. Feedback was provided, revised versions were submitted by MEL team on 24th May. The team found the revised tools to be below-expectations.	To circumvent the challenges faced, the team held several review and feedback sessions along with comprehensive guidelines. However, since the issues persisted, the pilot for academic and perception assessment has been postponed to August when schools reopen. In the meantime, the team will help MEL firm improve their understanding of the program,
	allowing them more time to develop quality instruments.