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InnovatED AMAL Labs

Program Review Report



Table of Contents

01	<u>Introduction</u>	
	Overview of AMAL Labs.....	2
02	<u>Methodology</u>	
	2.1 Program Review Purpose & Scope.....	3
	2.2 Research Ethics & Limitations.....	3
03	<u>Findings</u>	
	3.1 Relevance.....	5
	3.2 Coherence.....	7
	3.3 Effectiveness.....	9
	3.4 Efficiency.....	12
	3.5 Impact.....	13
	3.6 Sustainability.....	18
04	<u>Conclusion</u>	21
05	<u>Policy Case</u>	22

1. Introduction



Overview of AMAL Labs

Kenya has made substantial investments in digital education through government initiatives and partnerships with organisations such as UNESCO and the World Bank to strengthen teaching and learning through technology. More recently, the focus has shifted toward Artificial Intelligence (AI) as a tool to improve educational quality. AI-powered platforms can support teachers by developing high-quality lesson plans, aligning instruction with the Competency-Based Curriculum (CBC), generating formative assessments, reducing time spent on lesson preparation and administrative tasks, and supporting continuous professional development. Despite this potential, many teachers continue to experience barriers including limited digital skills, inconsistent internet connectivity, limited access to digital devices, and heavy workloads and large class sizes. These challenges highlight the need for evidence on whether AI can meaningfully improve teaching practice within real classroom contexts.

AMAL, developed by AMAL Labs, is an AI-powered teacher support platform, accessible via a WhatsApp bot and a web application, that helps educators generate lesson plans, schemes of work, formative and summative assessments, and instructional materials aligned to CBC. Metis implemented the InnovatED Amal Labs Program to provide teachers with access to AMAL with an aim to improve teaching quality, strengthen learning, and enhance teacher wellbeing. Since its rollout in August 2025, the platform has reached over 14,697 registered users in Kenya by June 2026¹, providing support in lesson planning, CBC aligned assessment development, and teacher professional learning. While adoption has grown rapidly, there was, at the outset of this evaluation, limited rigorous evidence on whether the platform improves teacher outcomes; the gap this evaluation was designed to close.

1. Amal Dashboard

2. Methodology



2.1 Program Review Purpose & Scope

This report brings together two complementary evidence streams to assess whether AMAL Labs can scale cost-effectively and sustainably to 10,000+ teachers, using the OECD DAC evaluation criteria of Relevance, Coherence, Effectiveness, Efficiency, Impact, and Sustainability. The review combines programme implementation data from 2,523 educators collected between 2025 and 2026, together with 11 months of monitoring data (outreach, training, community engagement, course completion, and platform use), and a cluster-randomized Difference-in-Differences (DiD) impact evaluation in 27 schools in Machakos County involving 573 teacher observations.¹ Together, these provide evidence on programme performance, causal impact, and teacher experiences to inform future scale-up.

2.2 Research Ethics & Limitations

The evaluation maintained high ethical standards throughout the study, including obtaining informed consent and protecting participants' privacy, confidentiality, and anonymity.

Several limitations should be considered when interpreting the findings. First, the randomized controlled trial (RCT) was conducted in one county (Machakos), which may limit the generalizability of the impact estimates to other geographical contexts in Kenya. Second, platform analytics, particularly WhatsApp engagement data and web-platform country filters between April and June 2026, experienced reporting instability and should therefore be interpreted with caution. Finally, the evaluation was still ongoing at the time of report writing. As a result, some analyses, including the standardized review of lesson plans, schemes of work, and assessment quality, had not yet been completed and will be reported in the final evaluation.



1. Amal Labs Machakos RCT Study

3. Findings

3.1 Relevance

3.1.1. User & Context Fit: Public School Teachers Represent the Greatest Opportunity for Impact

The program review shows that AMAL Labs responds to some of the most pressing challenges faced by Kenyan teachers, particularly administrative workload, wellbeing, curriculum planning, digital skills, and learner support

Program Review Report

Key individuals served



Primary Priority: Public-School, High-Workload Teachers

The Profile: These educators represent the vast majority of the user base (91% of baseline users).

The Need: They carry the heaviest administrative burden, with 40% of public-school teachers spending 7 or more hours weekly on marking, schemes of work, and project management (compared to 28% in private schools)

The Paradox: While they have the highest need and stand to benefit the most, they are also the hardest-to-reach segment because they are heavily constrained by poor internet connectivity, power blackouts, and rigid school policies that still mandate handwritten lesson plans

Secondary Priority: Private-School and Digitally Fluent Educators

The Profile: These teachers are typically younger, have better access to technology, and exhibit higher baseline digital literacy.

The Strategy: Because they face fewer infrastructure barriers, they are an "easier-to-convert" segment.

The Positioning: Instead of focusing on basic digital literacy or standard document generation, AMAL should target them with advanced features, such as learning differentiation, student inclusion strategies, and advanced subject-specific modules.

High-Leverage Cascade Segment: Senior and Deputy Head Teachers

The Profile: Senior teachers make up 9% of public-school users, and deputy head teachers account for 6%.

The Strategy: Training these specific administrators creates a strong internal support network, allowing them to cascade AI learning and peer-to-peer mentoring to the wider school community. This is critical since peer support is documented as the single dominant driver of sustained platform use (65.5% of teachers cite peers as their main source of support).

3. Findings

3.1 Relevance

3.1.1. User & Context Fit: Public School Teachers Represent the Greatest Opportunity for Impact

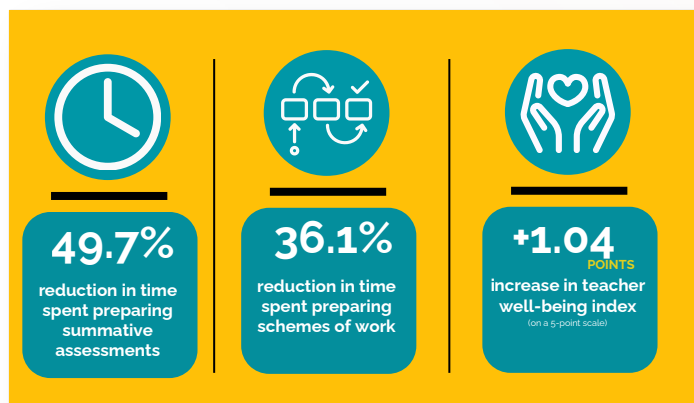
Teachers spend a significant amount of time on administrative work that reduces the time available for teaching. From the survey 40% of public school teachers and 28% of private school teachers spent 7 or more hours each week on marking, preparing schemes of work, and managing student projects². In addition, 48% spent 4 or more hours tracking learner performance, while 46% spent the same amount of time preparing assessments and marking schemes. The evaluation found that AMAL substantially reduced preparation time. In the Machakos randomized controlled trial, teachers reduced the time spent preparing summative assessments by 49.7% ($p < 0.01$)¹, schemes of work by 31.6% ($p < 0.01$)¹, lesson plans by 12.4% ($p < 0.10$)¹, and formative assessments by 12.2% ($p < 0.10$)¹.

Reducing routine administrative work also improved teacher wellbeing. The evaluation recorded a 1.04-point increase in the teacher wellbeing index on a five-point scale ($p < 0.01$), making this the strongest measured outcome. Teachers reported feeling more organized, experiencing less stress, and having more time and energy to focus on teaching.¹

The findings also highlight the need for curriculum-aligned AI tools. Although 65% of public school teachers had previously used AI, 58% used it mainly for personal purposes². Most relied on general-purpose platforms such as ChatGPT (77%) and WhatsApp AI (48%), which are not specifically designed for the Kenyan Competency-Based Curriculum (CBC)². AMAL addressed this gap by providing AI-generated lesson plans, lesson notes, and assessments that align with the CBC.

The platform also strengthened teachers' digital capacity. While 99% of teachers believed AI could improve education, many reported limited skills and insufficient training. Participation in InnovatED AMAL Labs increased the overall AI skills adoption index by 0.21 points on a five-point scale ($p < 0.05$), with the largest improvements in AI-supported lesson planning (+0.23, $p < 0.05$) and AI-supported assessment development (+0.23, $p < 0.05$) within the RCT group.¹

Finally, AMAL Labs supported teachers in responding to diverse learner needs. By reducing time spent on administrative tasks, teachers were able to dedicate more time to mentoring, facilitating small-group learning, and providing individualized support. In the Machakos trial, 14.2% of teachers used the platform to support learner differentiation and inclusion, including developing tailored learning resources and Individualized Education Plans (IEPs).¹



1. Amal Labs Machakos RCT Study

2. National Baseline Survey

3. Findings

3.1 Relevance

3.1.2. Content & Platform Fit: CBC-Aligned Content Meets Teachers' Planning Needs

One of AMAL's key strengths is its ability to generate content that is specifically aligned to the Kenyan Competency-Based Curriculum (CBC). Unlike general-purpose AI tools such as ChatGPT and META AI, which often produce generic outputs, AMAL provides lesson plans, schemes of work, lesson notes, and assessments that match local curriculum requirements. This curriculum alignment was reflected in high adoption of its core features. EduPlanner was used by 90.3% of teachers, EduTask by 80.5%, EduSeries by 67.3%, and lesson notes generation by 65.5% of teachers from the RCT. The platform also reduced preparation time, with teachers spending 49.7% less time preparing summative assessments and 31.6% less time preparing schemes of work. Most teachers required little editing before using the generated content, with 69% making only minor modifications and 15% using the materials exactly as generated observed in the RCT.¹



Despite these strengths, the RCT identified several opportunities to improve content coverage and relevance. Teachers reported gaps in Kiswahili and Agriculture resources, while others noted that some outputs had not yet been updated to reflect the 2024 revised CBC/KICD curriculum, resulting in incorrect grade levels or strand sequencing. Content was also missing for pre-primary and Grade 10 learners. Although assessment generation was widely used, teachers occasionally refined the generated tasks to better match learner abilities and ensure adequate topic coverage. In addition, some specialized tools remained underutilized, including Learning Differentiation and Inclusion (14.2%), EduProject (10%), and EduFeedback (6%). Teachers expressed interest in additional guidance on advanced prompting techniques to create more customized resources, such as Individualized Education Plans (IEPs) for learners with diverse needs.²

Conclusion

The review found that AMAL delivers highly relevant, CBC-aligned content that effectively supports teachers' day-to-day planning, with lesson planning, assessment, and schemes of work emerging as its most valued features. Continued investment in curriculum updates, expanded subject and grade coverage, and advanced features for learner differentiation and inclusion will further strengthen the platform's value to teachers and its long-term relevance.

3. Findings

3.2. Coherence

3.2.1. Policy & Institutional Alignment: Strong Foundation for Institutional Scale

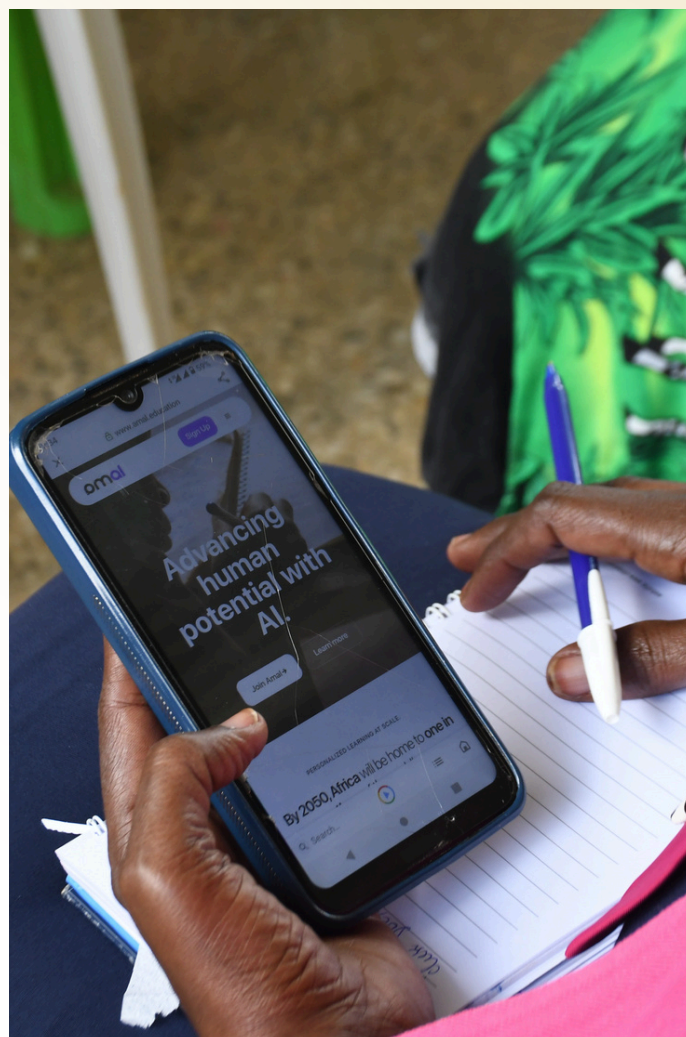
Teachers consistently reported that AMAL improves the quality of lesson preparation by producing structured, curriculum-aligned lesson plans and schemes of work while significantly reducing preparation time. In the Machakos randomized controlled trial (RCT), teachers in treatment schools noted that the platform generated lesson notes, learner activities, examples, and teaching resources that supported delivery of the Competency-Based Curriculum (CBC). While these perceptions were overwhelmingly positive, an objective assessment of document quality is still underway. At the time of report writing, an independent review of lesson plans, schemes of work, and assessment documents using standardized quality rubrics had not yet been completed.

Despite strong user confidence, several policy and system barriers limit the platform's full potential. The most significant challenge is the continued requirement by some headteachers and CSOs for handwritten lesson plans and schemes of work in many public schools. As a result, teachers often prepare documents using AMAL and then manually rewrite them, reducing the time-saving benefits of the platform¹.

Additionally, the absence of formal KICD certification as an important barrier to wider institutional adoption. Without official curriculum validation, AMAL remains a teacher-driven innovation rather than an officially recognized planning tool. In addition, some teachers reported that parts of the platform had not yet fully incorporated the 2024 revised CBC/KICD curriculum, leading to outdated grade levels or strand sequencing. Many addressed this by uploading the latest curriculum documents into the platform's My Library feature¹.

Conclusion

AMAL demonstrates strong alignment with the Competency-Based Curriculum (CBC) and addresses teachers' day-to-day planning needs. Building on this foundation through formal KICD certification, continued curriculum updates, and greater recognition of digital lesson planning will strengthen its position for wider institutional adoption and national scale.



3. Findings

3.2. Coherence

3.2.1. Policy & Institutional Alignment: Strong Foundation for Institutional Scale

The review reveals that the program fills an important gap within Kenya's EdTech ecosystem by complementing existing digital infrastructure, AI tools, and teacher professional development rather than replacing them. While digital access is already widespread, with over 90% of teachers owning digital devices and 99% believing AI can improve education, existing solutions do not adequately support teachers' day-to-day planning and administrative responsibilities. Although 77% of public-school teachers used ChatGPT and 48% used WhatsApp AI, 58% reported using AI already but produce inconsistent, non-curriculum-linked output¹. AMAL addresses this gap by providing curriculum-aligned lesson plans, schemes of work, lesson notes, and assessments that can be directly applied in the classroom.

The program also fills a gap left by most teacher development initiatives, which primarily focus on instructional skills but provide limited support for reducing teachers' administrative workload. AMAL demonstrated significant reductions in time spent preparing **summative assessments (49.7%)** and **schemes of work (31.6%)**, alongside improvements in teacher wellbeing². In addition, the platform addresses infrastructure challenges by offering both a web platform and a WhatsApp interface, providing a practical solution for teachers working in environments with unreliable internet connectivity, identified by **77.9% of teachers** as a major challenge¹.

49.7%

Summative Assessments

Reductions in time spent
preparing

31.6%

Schemes of work

InnovatED AMAL Labs has further strengthened its ecosystem position through partnerships that support adoption rather than parallel implementation. METIS Fellows were instrumental in positioning the program within existing education systems by building local partnerships, mobilizing teachers, and providing hands-on implementation support. They connected schools with Curriculum Support Officers (CSOs), TSC officials, teacher associations, and community organizations, enabling trusted local delivery rather than standalone technology deployment. Partnerships with **Curriculum Support Officers**, and engagement with **KECSHA** position the program within existing teacher support structures, creating pathways for institutional uptake rather than establishing a separate parallel system³.

Conclusion

The review shows that InnovatED AMAL Labs complements existing EdTech and teacher development initiatives by addressing gaps that other solutions do not, particularly curriculum-aligned AI support, administrative efficiency, and practical classroom application. Its integration with existing teacher networks and partnerships, rather than creating parallel systems, provides a strong foundation for sustainable adoption and future scale across Kenya's education system.

1. National Baseline Survey

2. Amal Labs Machakos RCT Study

3. InnovatED Amal Labs Closing Report

3. Findings

3.3. Effectiveness

3.3.1. Reach & Onboarding Effectiveness - Blended Delivery Model Expanded Teacher Reach and Engagement

InnovatED AMAL Labs adopted a blended engagement model, combining face-to-face activities for teacher recruitment, hands-on onboarding, and confidence building with online platforms for large-scale reach, refresher training, and continuous learning. By June 2026, the program had registered 14,697¹ teachers on the platform.

Implementation records indicate **5,676 teachers** were reached through **teacher summits** (multi-school events), **614 teachers** through **in-school trainings**, **2,657 teachers** through **webinars**, and **978 teachers** participating in learning activities on **Mighty Networks**.² The higher participation figures likely reflect broader mobilization through strategic partnerships, particularly with Metis Fellows, as well as repeat participation across multiple engagement channels. Comparing physically trained teachers with returning users shows a **99.86% ratio**, suggesting strong continued engagement following face-to-face onboarding. Webinars complemented physical training by providing refresher learning and ongoing support, helping sustain teacher engagement and retention over time.



“I think physical, in-person training usually makes a bigger impact, so more of those would be great if possible. Online training works too, but it really depends on the format like the one we're about to have.”

3. Findings

3.3. Effectiveness

3.3.1. Reach & Onboarding Effectiveness - Blended Delivery Model Expanded Teacher Reach and Engagement

Delivery Channel	Strengths	Strengths	Challenges / Gaps
Teacher Summits (Physical)	47 summits reaching 5,676 teachers . Peak month was March 2026 with 22 summits and 2,928 participants . ¹	Largest recruitment channel. Hands-on demonstrations, small-group practice, and pre-onboarding improved adoption. Participation of Curriculum Support Officers (CSOs) and government officials increased teacher confidence and reduced implementation barriers.	Resource-intensive and dependent on logistics and travel.
In-School Training (Physical)	16 trainings across 16 schools , reaching 614 teachers . ¹	Effective for first-time AI users through personalized support. Reliable internet and projection equipment enabled real-time practice and stronger onboarding.	Limited reach compared to large-scale summits.
Webinars (Online)	62 webinars reaching 2,657 teachers , with participation growing to 525 teachers across 45 counties by June 2026. ¹	Extended national reach at low cost. Became effective as refresher sessions after teachers had received face-to-face training.	Teachers preferred physical onboarding for initial learning. Technical issues such as late links and login delays affected participation.
Mighty Networks (Self-paced Learning)	978 registrations between August 2025 and June 2026. ¹	Achieved a 57% course completion rate , with 81% of active learners completing the final module. Enabled flexible, self-paced learning.	24% started but did not finish, while 19% registered without engaging. Completion declined during busy school periods.

Conclusion

The review shows that InnovatED AMAL Labs complements existing EdTech and teacher development initiatives by addressing gaps that other solutions do not, particularly curriculum-aligned AI support, administrative efficiency, and practical classroom application. Its integration with existing teacher networks and partnerships, rather than creating parallel systems, provides a strong foundation for sustainable adoption and future scale across Kenya's education system.

3. Findings

3.3. Effectiveness

3.3.2. Community Engagement Effectiveness: Community Engagement Strengthened Teacher Learning and Support

The evaluation found that community engagement channels were effective in supporting teacher learning and ongoing engagement, but sustained participation varied across channels. Centralized Metis-led communities successfully fostered active participation and peer learning, while localized peer-led structures required further strengthening.

Community Channel	Evidence of Effectiveness	Key Findings
Central WhatsApp Communities	Active Communities of Practice where teachers exchanged ideas, shared prompts, solved technical challenges, and celebrated learning milestones. ¹	The strongest peer-learning channel. Communities evolved beyond technical support into spaces for professional learning, motivation, and teacher wellbeing through regular engagement activities.
Regional WhatsApp Groups	Engagement remained largely facilitator-driven. ¹	Peer-led participation was limited, with teacher interaction declining without active facilitation, indicating that local communities had not yet become self-sustaining.
Star Teachers	Initial 16-member Star Teacher network generated limited cascading at the school level. The star teachers were later engaged as Trainers of Trainers from February 2026 with a structured four-member ToT approach. ¹ The trainer of trainers led teacher summit and in-school trainings from February.	The Star Teachers played a key role in recruiting, onboarding, and supporting teachers through WhatsApp, webinars, teacher summits, and in-school trainings , using peer demonstrations to build confidence and showcase practical classroom applications of AMAL. While the referral model did not generate the expected peer-to-peer referrals, Star Teachers remained effective in teacher onboarding and support through the Trainer of Trainers (ToT) approach to strengthen accountability, improve knowledge cascading, and build sustainable local leadership.
Metis Fellows	52.2% of teachers identified METIS and Kenya Connect as their primary source of ongoing support. ²	METIS Fellows strengthened community engagement by mobilizing teachers, facilitating peer learning, coordinating local partnerships, and providing continuous support that increased participation, built trust, and sustained teacher engagement. ¹

The evidence suggests that Metis-led communities and centralized WhatsApp channels successfully created sustained engagement and peer learning, while localized peer-support mechanisms required redesign to strengthen teacher ownership and long-term participation. The transition from the Star Teacher model to the Trainer of Trainers approach reflects the program's adaptive response to improving community-led scale and sustainability.

3. Findings

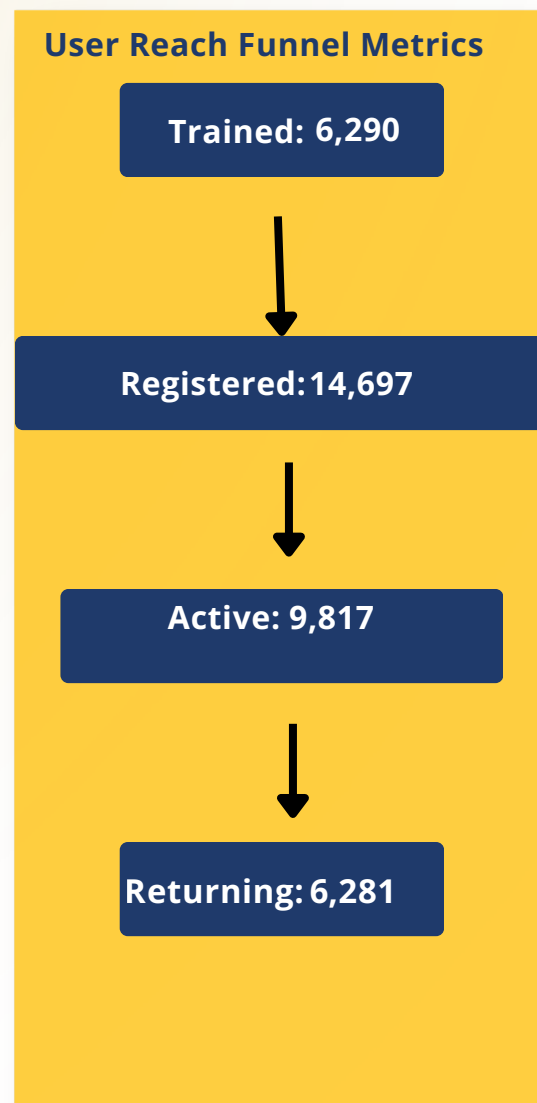
3.4. Efficiency

3.4.1. Cost-Effectiveness of Delivery Channels: Blended Delivery Maximized program Reach and Cost-Effectiveness

The program spent **KES 15.05 million** against a grant amount of **KES 14.77 million**, representing an **overspend of 1.8.%¹**. Despite this, the program achieved substantial reach, supporting **6,290 directly trained teachers**, **14,697 registered users²**, **9,817 active users**, and **6,281 returning users³**. This translates to an average cost of **KES 2,393 per directly trained teacher**, **KES 1,533 per active user**, and **KES 2,396 per returning user**.

The figure of **6,290 trained teachers** represents **teachers whose participation can be verified through program records**, rather than the total number of participants reported across all engagement activities. Several factors explain the difference between this figure and the cumulative attendance reported for summits, webinars, and in-school trainings:

- **Virtual participation was not fully tracked.** To reduce barriers to participation, registration requirements for later webinars were removed, making it impossible to capture complete attendance records. Only the earliest virtual sessions were fully documented.
- **Partner-led and peer-led training extended program reach.** Partners, Metis Fellows, together with Star Teachers, conducted additional training and demonstrations that were not consistently captured in the central database.
- **Organic referrals increased registrations.** Teachers frequently introduced colleagues to AMAL, resulting in self-registration without participation in an official training event.



The evaluation also suggests different delivery channels served different purposes. Face-to-face training was the most effective approach for onboarding new users because teachers valued the practical demonstrations and one-on-one support during summits and school visits. Webinars, on the other hand, became more effective as refresher sessions that reinforced skills and encouraged continued platform use after initial onboarding.

Overall, these findings indicate that the most cost-effective strategy is a blended delivery model: invest in face-to-face engagement to achieve quality onboarding and early adoption, while using webinars and community-based support to maintain engagement and retention at a lower marginal cost. This approach maximizes both teacher reach and long-term platform use while keeping program costs manageable.

1. Financial report

2. InnovatED Amal Labs Closing Report

3. AMAL Labs Dashboard

4. Monitoring Progress Report

3. Findings

3.5. Impact

3.5.1. Teaching Quality (Primary Outcome): Teachers Report Better Quality Lesson Preparation

Finding	Evidence
Minimal editing	69% minor modifications
Preparation	Faster & more structured
Curriculum alignment	CBC-aligned
Assessment	More structured



At the time of reporting, the formal review and scoring of teacher lesson plans, schemes of work, and assessment documents using standardized quality rubrics was still underway. As a result, quantitative evidence on improvements in document quality is not yet available.

However, qualitative findings consistently indicate that AMAL improved lesson preparation and instructional quality. Teachers in treatment schools reported producing faster, more structured, and CBC-aligned lesson plans and schemes of work than those relying on manual preparation or general AI tools. Most teachers (69%) made only minor modifications before using the generated materials, allowing them to spend more time preparing teaching and learning resources for their classrooms. Teachers also reported developing more structured formative assessments aligned to learning outcomes, although some assessment tasks required manual refinement to address different learner abilities.¹

“Teachers have really appreciated the AMAL platform because it has the KICD curriculum design embedded in it, making it easier to generate teaching resources and save time. They can then use that time to focus on learners’ needs and engage them in more interactive classroom activities.”

1. Amal Labs Machakos RCT Study
2. AMAL Labs Testimonials

3. Findings

3.5. Impact

3.5.2. Teacher Development: Teacher Development Through AI-Enabled Teaching

This section examines how participation in InnovatED AMAL Labs influenced teacher development by strengthening AI skills, confidence, and satisfaction with the platform. It also explores whether these outcomes differed across teacher segments, school types, and locations, providing insight into how consistently the program supported teachers in different contexts.

Improvements in Teachers' AI Skills

AMAL improved teachers' ability to use AI in lesson preparation and classroom practice. Compared to the control group, teachers in the RCT group using the platform recorded a 0.21-point increase in the overall AI Skills Adoption Index on a five-point scale ($p < 0.05$). The largest improvements were in lesson planning (+0.23 points, $p < 0.05$) and assessment design (+0.23 points, $p < 0.05$)¹.

Teachers reported greater confidence in using AI to prepare lesson plans, assessments, and teaching resources, while also developing stronger prompting and digital skills.

Peer learning played an important role, with 41.6% of teachers identifying colleagues as their main source of learning AI skills. However, adoption was constrained by internet access, with 77.9% of teachers citing poor connectivity as their biggest challenge.¹

Teacher Confidence in Lesson Delivery

The evaluation found no statistically significant improvement in teachers' self-reported confidence in lesson delivery. Teachers using AMAL scored 0.03 points higher than the comparison group on a five-point scale, and this difference was not statistically significant. This is likely because teachers already reported very high confidence at baseline (4.30/5 in the treatment group and 4.36/5 in the comparison group), leaving little room for measurable improvement.

However, qualitative findings tell a different story. Teachers consistently reported that AMAL helped them prepare better - structured, CBC-aligned lesson plans more quickly, making them feel more organized, less anxious, and better prepared before entering the classroom. The time saved on lesson preparation also allowed teachers to focus more on learner-centred activities and active classroom facilitation. While confidence in lesson delivery remained high throughout the study, teachers reported increased confidence in using AI and digital tools to support planning, assessment, and teaching.



"I'm very grateful for this platform. I now have more time to spend with my learners, compared to before when I spent most of my time preparing professional documents."



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2. AMAL Labs Testimonials

3. Findings

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96.5%

**intend to continue
using AMAL**

Strong potential for
sustained platform use
beyond the
programme.

87.6%

**would recommend
AMAL to colleagues**

52.2% rated it 10/10,
while 35.4% rated it 8–
9/10.

4.16 / 5

**average teacher
satisfaction score**

Teachers reported
consistently positive
experiences with the
platform.

Improvements in Teachers' AI Skills

The evaluation found very high levels of teacher satisfaction with AMAL, with the platform receiving an average perception score of 4.16 out of 5, indicating consistently positive user experiences. Teachers also expressed a strong intention to continue using the platform, with 96.5% reporting they were likely to keep using AMAL beyond the program.

Teachers also became strong advocates for the platform. More than half (52.2%) gave the highest possible recommendation score (10/10), while another 35.4% rated it 8 or 9 out of 10, demonstrating strong willingness to recommend it to colleagues.¹

Qualitative findings suggest that satisfaction was driven by the platform's ability to generate CBC-aligned lesson plans, schemes of work, and assessments, reducing teachers' workload while supporting lesson preparation. Most teachers (69%) made only minor modifications to the generated content before classroom use, indicating that the outputs were considered practical and relevant while still allowing teachers to adapt them to their learners' needs.¹

Conclusion

AMAL strengthened teachers' AI skills, digital confidence, and satisfaction, particularly in lesson planning and assessment design. Although lesson delivery confidence did not increase significantly, teachers reported feeling better prepared and more organized. Satisfaction was high, with 96.5% intending to continue using the platform and 87.6% willing to recommend it. Variation in outcomes was driven more by internet connectivity and ongoing support than by teacher or school characteristics.

3. Findings

3.5. Impact

3.5.2. Teacher Development: Teacher Development Through AI-Enabled Teaching

This section examines how participation in InnovatED AMAL Labs influenced teacher development by strengthening AI skills, confidence, and satisfaction with the platform. It also explores whether these outcomes differed across teacher segments, school types, and locations, providing insight into how consistently the program supported teachers in different contexts.

+1.04

Points

Teacher wellbeing improved

(on a 5-point scale | $p < 0.01$)



Less Stress

Teachers reported feeling less stressed and more organized as preparation became faster and more manageable.



More Time for Teaching

Time saved was redirected toward teaching, learner support and co-curricular activities.



Teacher Wellbeing and Burnout

AMAL had its strongest impact on improving teacher wellbeing. Teachers using the platform recorded a 1.04-point increase on a five-point wellbeing index ($p < 0.01$)¹, making it the largest improvement observed across all program outcomes.

Teachers attributed these improvements to the time saved on preparing lesson plans, schemes of work, and assessments. They reported feeling more organized, less stressed, and having more time to focus on teaching, learner support, co-curricular activities, and personal responsibilities.

However, teachers noted that AMAL mainly reduced preparation-related workload. Other sources of stress, such as large class sizes, marking, administrative duties, and unreliable internet connectivity, continued to affect their overall workload.

Conclusion

The evaluation shows that AMAL substantially improved teacher efficiency by reducing preparation time for key teaching documents and significantly improving teacher wellbeing. The time saved allowed teachers to focus more on teaching and learner support, suggesting that improved efficiency contributed to better teaching quality. However, broader workload pressures, including large class sizes, marking, administrative duties, and connectivity challenges, remained outside the program's influence

“It has helped me improve my teaching methods, strengthen my relationship-building skills, and collaborate more effectively with others.”

3. Findings

3.5. Impact

3.5.3. Teacher Wellbeing & Efficiency (Enabling Factor): AMAL Improved Teacher Efficiency and Wellbeing

This section examines how AMAL influenced teacher efficiency and wellbeing by reducing the time spent on lesson preparation and easing workload-related stress. It also explores how these improvements enabled teachers to dedicate more time to teaching and learner support, contributing to better classroom practice.

Time Savings in Lesson Preparation

The RCT evaluation found that AMAL significantly reduced the time teachers spent preparing key teaching documents. Compared to teachers in the comparison group, those using AMAL spent 49.7% less time preparing summative assessments and 31.6% less time preparing schemes of work ($p < 0.01$).¹ The platform also reduced time spent on lesson planning by 12.4% and formative assessments by 12.2%.¹

Teachers reported using the time saved to focus on activities that directly support learning, including preparing teaching resources, engaging learners, providing individual support, marking work, and participating in co-curricular activities. They also described feeling more organized and less stressed because lesson preparation became faster and more manageable. However, while AMAL reduced preparation time, it did not reduce other teaching responsibilities such as grading, large class management, and school administration.



49.7%

less time preparing
summative
assessments

31.6%

less time preparing
Schemes of Work

12.4%

less time spent on
lesson planning

12.2%

less time preparing
formative assessments

3. Findings

3.6. Sustainability

3.6.1. Sustainability Risks & Investment Requirements: Addressing Key Risks to Enable National Scale

The evaluation identified several risks that could affect the long-term sustainability of InnovaTED AMAL Labs beyond the current program cycle. Most risks relate to infrastructure, policy, content quality, and long-term support systems. Addressing these risks will require targeted technical, institutional, and operational investments.

Risk Area	Evidence	Potential Risk	Priority Investment
Internet connectivity	77.9% of Machakos teachers ¹ and 53% of surveyed teachers nationally ² cited poor internet as their biggest challenge.	Reduced platform use, particularly in remote schools.	Continue building on mobile-first through WhatsApp with some offline functionality, improve platform performance, and establish affordable data partnerships.
Policy and institutional adoption	Public schools continue to require handwritten lesson plans and schemes of work. AMAL has not yet received formal KICD certification.	Teachers duplicate work and institutional adoption remains limited.	Secure KICD curriculum approval and advocate for recognition of digital lesson planning by MoE, TSC, and finally head teachers
Content quality and curriculum updates	Teachers reported outdated curriculum strands and gaps in subjects such as Kiswahili, Agriculture, Pre-primary and Grade 10.	Reduced trust in AI-generated content and increased manual editing.	Regularly update content to reflect KICD curriculum revisions and expand subject coverage.
Quality assurance	58% of teachers reported only sometimes or rarely reviewing AI-generated outputs before use. ¹	Risk of inaccurate or poorly adapted teaching materials.	Strengthen teacher training on reviewing AI outputs and improve assessment calibration.

Conclusion

InnovatED AMAL Labs has demonstrated strong potential for long-term sustainability, but achieving national scale will require investments beyond technology alone. The highest priorities are improving connectivity, securing institutional recognition, maintaining curriculum quality, strengthening peer-support systems, and establishing sustainable financing and partnerships. Together, these investments will reduce implementation risks and support wider adoption across the education system.³

1. Amal Labs Machakos RCT Study

2. National Baseline Survey

3. Monitoring Progress Report

3. Findings

3.6. Sustainability

3.6.2. Partnerships & Mechanisms for Sustained Scale: Strategic Partnerships To Provide a Strong Foundation for Sustainable Scale

The evaluation found that InnovatED AMAL Labs has established a strong foundation of partnerships that support implementation, teacher engagement, and early scale. The current model combines technology partners, community partners, teacher associations, and government stakeholders, enabling the program to leverage existing education networks rather than creating parallel structures. However, sustaining national scale will require more formalized partnerships with clearly defined governance, financing, and resource commitments.

Partnership Area	Current Mechanism	Contribution to Sustainability	Future Strengthening Required
Partnerships for Legitimacy & Policy Alignment through Government institutions and policy partners	Collaboration with Curriculum Support Officers (CSOs) during training has improved teacher trust and local integration. ¹	Supports local ownership and strengthens links with the education system.	Establish formal partnerships with KICD, MoE, and TSC to secure curriculum certification and recognition of AI-supported digital lesson planning.
Partnerships for Pedagogical Support & Implementation through Community and implementation partners	METIS Collective works through its Alumni network, to provide local training venues, mobilize teachers, deliver training, and provide ongoing technical support. 52.2% of teachers identified METIS and Kenya Connect as their main source of support. ²	Provides localized implementation, reduces delivery costs, and strengthens teacher adoption through trusted community organizations.	Expand the community partner network and strengthen the Trainer of Trainers model to reduce dependence on central facilitation.
Partnerships for Reach & National Scale through Teacher associations, school associations	The program explored partnerships with teacher and school associations for example, engagement with KECSHA is underway. ¹	Enables rapid teacher mobilization through existing professional networks.	Formalize partnerships with KECSHA and other teacher associations to support national scale.
Partnerships for Operational Cost-Control through Operational and financing partners	The program has leveraged in-kind contributions, including training venues and partner support, to keep implementation costs low. ¹	Reduces operational costs during scale-up.	Build on existing partnerships and networks by establishing resource-related partnership agreements with clear financial, technical, and governance commitments.

1. InnovatED Amal Labs Closing Report

2. Amal Labs Machakos RCT Study

3. Findings

3.6. Sustainability

3.6.2. Partnerships & Mechanisms for Sustained Scale: Strategic Partnerships To Provide a Strong Foundation for Sustainable Scale

The current partnership model provides a strong foundation for growth by combining **METIS fellows, teacher associations, and government stakeholders** to support teacher adoption and local implementation. To achieve sustainable national scale, the program should strengthen these arrangements through formal governance structures, long-term financing, institutional partnerships with **KICD, MoE, and TSC**, and resourced agreements that clearly define partner roles and contributions.



4. Conclusion

- The evaluation demonstrates that **METIS successfully implemented a blended teacher engagement model** that combined face-to-face onboarding with online learning and community support to drive widespread adoption of AMAL. Through strategic partnerships and collaborations with Metis Fellows, **and Curriculum Support Officers**, the program reached teachers through existing education networks rather than creating parallel systems. This approach enabled rapid scale while keeping implementation costs manageable.
- The program generated measurable improvements in teacher efficiency, wellbeing, and AI skills by addressing one of teachers' greatest challenges, administrative workload. Teachers spent substantially less time preparing teaching documents, reported lower stress, and developed stronger AI capabilities while maintaining high levels of satisfaction and intention to continue using the platform.
- The findings suggest that InnovatED AMAL Labs is ready to move beyond a successful implementation model towards broader institutional adoption. Achieving sustainable national scale will require **METIS and its partners** to focus on formal government partnerships, continuous curriculum alignment, improved mobile-first and/or offline accessibility, and long-term resourced partnership agreements. These investments will strengthen institutional ownership while ensuring that the benefits demonstrated during the program can be sustained and expanded across Kenya's education system.



5. Policy Case

Scaling AI-Enabled Teacher Support in Kenya

- Kenya has made significant investments in digital education, teacher professional development, and the Competency-Based Curriculum (CBC). The next opportunity is to ensure these investments translate into **practical improvements in teachers' daily work**.
- **InnovatED AMAL Labs Program**, implemented by **METIS Collective**, demonstrates that AI can substantially reduce teachers' administrative workload while strengthening lesson preparation, teacher wellbeing, and digital skills. Rather than replacing existing government systems, AMAL complements them by providing curriculum-aligned planning tools that fit naturally within teachers' workflows.
- The program reached **14,697 registered teachers**, achieved measurable improvements in teacher efficiency and wellbeing, and established a partnership model that leverages existing teacher networks rather than creating parallel implementation structures.

Why This Matters

Teachers continue to spend considerable time preparing lesson plans, schemes of work and assessments, reducing the time available for classroom instruction and learner support.

The program found that AMAL addresses this challenge by providing **CBC-aligned AI tools** that enable teachers to prepare high-quality teaching materials more efficiently while strengthening their digital capacity.

The evaluation demonstrated:

- **49.7% reduction** in time spent preparing summative assessments.
- **31.6% reduction** in Scheme of Work preparation.
- **1.04-point improvement** in teacher wellbeing—the strongest program outcome.
- **0.21-point increase** in teachers' AI skills.
- **96.5%** of teachers intend to continue using the platform.

These outcomes demonstrate that AI can improve teacher productivity when designed around teachers' needs and embedded within existing education systems.



5. Policy Case

Scaling AI-Enabled Teacher Support in Kenya

Why METIS is Well Positioned to Support National Scale

The review shows that the program's success was driven not only by the technology, but also by Metis' implementation approach.

- Rather than relying solely on software deployment, METIS combined:
- Human-centred approach to problem solving
- Teacher communities of practice
- Peer learning
- Strategic partnerships
- Continuous product improvement informed by user feedback

This enabled the program to work within existing education structures instead of creating parallel systems.

METIS has demonstrated its ability to:

- implement blended teacher learning models;
- mobilize teachers through trusted community organizations;
- work with government stakeholders and teacher associations;
- continuously improve AI tools using teacher feedback and evidence.
- This places METIS in a strong position to support future national or county-level AI initiatives.



5. Policy Case

Scaling AI-Enabled Teacher Support in Kenya

Four Priority Actions for National Scale

1

Institutionalize Curriculum Alignment

Establish a formal partnership with KICD for continuous curriculum validation, review of AI-generated content, and timely updates following curriculum changes. METIS can leverage its teacher networks to support structured user testing and feedback, ensuring AMAL content remains curriculum-aligned, practical, and relevant before wider deployment.

2

Modernize Digital Lesson Planning

Develop national AI-in-teaching guidelines with MoE, TSC, and KICD to formally recognize AI-supported digital lesson planning, enabling teachers to realize efficiency gains while maintaining curriculum quality and accountability.

3

Expand Access Through Mobile and Offline-First Design

Strengthen the WhatsApp chatbot, explore offline functionality, improve platform performance, and pursue affordable connectivity partnerships to expand access for teachers in low-connectivity areas.

4

Scale Through Existing Education Networks

Leverage METIS Fellows, Curriculum Support Officers, school leaders, and teacher champions to scale through existing education structures, supported by stronger partnerships and formal agreements for sustainable, cost-effective national expansion.

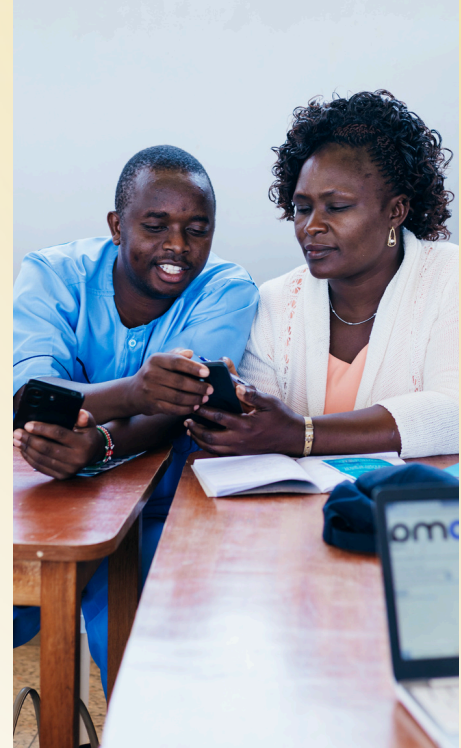
5. Policy Case

Scaling AI-Enabled Teacher Support in Kenya

Recommendations

The review recommends that the Ministry of Education, TSC, KICD and development partners:

1. Establish a national curriculum assurance process for AI-supported teaching resources.
2. Recognize AI-supported digital lesson planning within existing professional practice.
3. Develop and adapt national AI-in-teaching guidelines.
4. Invest in mobile and offline-first teacher AI infrastructure.
5. Expand implementation through existing teacher networks and associations.
6. Build on current partnerships through long-term agreements with shared technical, financial and governance responsibilities.



The Opportunity

Kenya has an opportunity to become a regional leader in responsible AI for education.

The evidence shows that AI can improve teacher productivity, wellbeing and instructional preparation when combined with curriculum alignment, strong partnerships and effective teacher support.

With demonstrated implementation experience, strong evidence of impact, and an established ecosystem of education partners,

Metis is well positioned to support government and development partners in designing, testing and scaling AI-enabled teacher support systems that are evidence-based, curriculum-aligned and sustainable.

Thank you!

References

- **Amal Dashboard**
- **Amal Labs Machakos RCT Study**
- **National Baseline Survey**
- **InnovatED Amal Labs Closing Report**
- **Monitoring Progress Report**
- **AMAL Labs Testimonials**