

UNICEF Evaluation Management Response Template

Evaluation Title: Impact evaluation of UNICEF’s parenting app “Bebbo”

Region: ECARO

Office: ECARO

Evaluation Year: 2023

Person-In-Charge for Follow-up to Management Response: Ivelina Borisova

Overall Response to the Evaluation: UNICEF ECARO welcomes the efforts undertaken through this evaluation of the Bebbo parenting app. The design—using a digital randomised controlled encouragement trial—is one of the most methodologically robust evaluations of any UNICEF-led digital public good to date and should set a **precedent for evidence generation for digital products** in UNICEF. We particularly appreciate the candid analysis of usage patterns and the study’s commitment to drawing actionable insights, regardless of outcome.

While the evaluation did not find statistically significant impacts across the sampled population, we acknowledge the important limitations of the methodology, including high baseline knowledge among recruited participants, pre-existing familiarity with Bebbo, and the very short timeframe for assessing behavioural change. These constraints, combined with the social media-led participant recruitment without service provider engagement, and the study’s reliance on self-guided usage, significantly limited the extent to which Bebbo’s full theory of change could be tested.

Importantly, the evaluation affirms that lack of impact is not due to a flaw in Bebbo’s content or logic model, but rather insufficient engagement levels among study participants. The finding that 5% of users remain regular users offers a critical learning opportunity. Emerging usage data, ongoing feedback from 24,000+ global users, and qualitative research—particularly focus group discussions across 7 countries—paint a far more promising picture than the RCT results alone suggest. This includes widespread reported improvements in knowledge, parenting confidence, and daily practices among Bebbo users, especially when the app is promoted through trusted channels such as health workers and preschools. It must also be mentioned that the user interface of the app has gone through significant changes in the 2 years since the user study was conducted.

In this sense, the evaluation has provided a valuable learning lens that will directly inform product improvement, user engagement strategies, service provider integration, and future research. As UNICEF continues to evolve Bebbo into an inclusive, open-source, global digital public good, the insights generated by this study will be embedded across all layers of design, implementation, and evaluation.

We are also encouraged by Bebbo’s external validation as a highly mature, secure and scalable product (UNICEF’s Djenga assessment), and its growing adoption in over 15 countries, with growing co-ownership by government partners in each Bebbo country. These broader programmatic and system-level shifts underscore Bebbo’s role not only as a product, but as a strategic platform to help governments deliver nurturing care, health and protection content to millions of parents.

Planned Use of Evaluation: The findings of the Bebbo impact evaluation will be used strategically to strengthen both the product and its programme implementation approach. While the study did not detect statistically significant effects on knowledge, attitudes or behaviours within the selected population and timeframe, the learnings it generated are highly valuable and will directly influence future decision-making on scale-up, feature design, audience targeting, and integration with service delivery.

Firstly, the evaluation underscores the critical role of **frequency of user engagement and service provider integration**—both core elements of Bebbo’s Theory of Change which were not tested in this study. Moving forward, implementation strategies will increasingly focus on embedding Bebbo into existing early childhood development ecosystem in the country, namely through health worker training, preschool partnerships, and broader ecosystem integration. This insight will also inform the upcoming Bebbo 2.0 product and programme model.

Secondly, the learning from the study’s methodology will feed into an important aspect of how to **evaluate digital solutions more meaningfully**. We will embed a lean evaluation mindset (including qualitative approaches) across Bebbo’s lifecycle, including more agile, user-centric approaches to monitor what works, for whom, and in what context along with the role of service providers. These approaches will also involve expanding methods beyond surveys to capture real-world usage data, qualitative experiences, and system-level effects.

Finally, we will act on the evaluation’s findings by further investing in understanding and amplifying the experience of **high-engagement user subgroups**. The data suggesting a core segment of active users confirms the app’s value proposition and potential—particularly for first-time parents, parents of children with disabilities, and fathers. These groups will be prioritised in new content development and targeted outreach.

In summary, the evaluation has been instrumental not only in assessing impact, but in sharpening UNICEF’s vision of Bebbo as a digital parenting platform that delivers equity, evidence and innovation at scale.

Allowed Editor: *Ivelina Borisova*

RECOMMENDATIONS and ACTIONS:

Evaluation Recommendation or Issue 1:

Invest in better understanding the current users: The 5% of downloaders that remain as regular users indicates that Bebbo may work for specific sub-groups. These groups need to be better understood to improve app outreach and uptake strategies to either reach new audiences or define that audience as the one of interest.

Management Response: (Agree, Partially Agree, Disagree): Partially Agree

If recommendation is rejected or partially accepted, report reasons:

UNICEF ECARO recognises this as an important insight for guiding the next phase of Bebbo’s development. This input will be considered in conjunction with overall detailed analytics available through Google Firebase for more than 1.4 million users across multiple countries (**where the**

number are significantly higher, for example, Uzbekistan has over 300K onboarded users). One of the evaluation’s most important contributions is the signal that Bebbu holds value for specific user sub-groups—especially among the users who engage regularly and meaningfully with the app.

Some key points to note here include:

- Parents are not a homogenous group. Usage patterns differ significantly by **parental role (e.g. mothers vs. fathers), level of digital literacy, and caregiving context** (e.g. children with developmental delays, single parents, migrant or displaced families). These segments require differentiated outreach, onboarding experiences, and curated content pathways—something Bebbu is uniquely equipped to deliver through its personalisation features and modular content structure.
- Another key factor missed by the study is the **critical role of trust**, particularly the trust that parents place in frontline service providers. In several countries, Bebbu uptake and sustained use increase when it is recommended by paediatricians, community nurses, or early childhood educators—trusted intermediaries who validate the app’s credibility and demonstrate how to use it. The evaluation’s self-guided, online recruitment approach did not test this mechanism, which is core to Bebbu’s implementation model.

Going forward, UNICEF will continue investing in granular user segmentation, leveraging real-time app analytics, survey data, and qualitative feedback from initiatives like the **Bebbu Parents’ Council**. These insights will shape more targeted engagement strategies and deepen Bebbu’s relevance for those who stand to benefit most.

Actions planned	Responsible Office	Responsible Person	Expected completion date	Implementation stage: Not started Underway Completed Cancelled	Actions taken	Supporting documents
1) Conduct in-depth analysis of app usage by child age group and parenting stage to identify differentiated needs. Also, collection of specific user data that provides insight into the profile of a ‘regular Bebbu user’.	ECARO	External Consultant	December 2025	Underway	In process to engage an external consultant to carry out independent preliminary age-specific usage trends identified through Firebase analytics and analysis of user survey data which provides insights to users’ demographic information, behaviours, app usage and topics of interest. User survey data from more than 25,000 users received to date.	

2) Launch mixed-methods impact study to understand user behaviour service-provider-recommended users	ECARO	External Consultant	June 2026	Underway	Draft TOR prepared to assess the impact of the outreach models where Bebbo is introduced through trusted service providers (e.g. health workers, early educators). In process of engaging an external consultant to carry out independent assessment of outreach through service providers (preferably in Uzbekistan).	
3) Leverage Bebbo Parents' Council to better understand behaviours and motivation of regular users.	ECARO	ECARO ECD	March 2025	Complete	Formation of the Bebbo Parents' Council to allow regular users to share their feedback and for the Bebbo team to gain an understanding of the wants and needs of regular users.	

Evaluation Recommendation or Issue 2: Adjust app focus based on context: Considering the high baseline scores of participants, it might be valuable (in places with already better than average parenting knowledge) to also consider a focus on particular practices (i.e. breastfeeding or pregnancy) that are still lagging, or groups which are lagging in all practices.

Management Response: (Agree, Partially Agree, Disagree): Partially agree

If recommendation is rejected or partially accepted, report reasons: UNICEF ECARO acknowledges the underlying rationale of this recommendation and agrees that context matters when delivering digital parenting content. However, we highlight an important caveat: the evaluation sample—recruited entirely through social media—may not be representative of the general population, especially those with limited access to parenting information. In fact, our internal analytics and focus group discussions from six Bebbo countries suggest that foundational parenting knowledge remains unevenly distributed across user groups and geographies.

Some other key points to note here include:

- Parenting needs are dynamic and vary significantly across a child's age span—from birth to age six.** Parents of newborns, for instance, seek guidance on breastfeeding and bonding; those with toddlers need support with language stimulation, nutrition, and emotional regulation; while parents of preschoolers prioritise play-based learning and school readiness. Bebbo covers diverse themes of nurturing care framework and different parents need different information. The evaluation's single-intervention design was not set up to assess outcomes across these distinct parenting stages, which limits the applicability of its conclusions to Bebbo's full user journey.

- Rather than shift away from core themes like health, development, and responsive caregiving, UNICEF is focused on **deepening and layering the app experience**. Bebbo’s structure allows us to offer additional, context-specific modules (e.g. on pregnancy, disability inclusion, gender-transformative parenting, or mental health), while still serving as a universal entry point for essential parenting guidance.
- Country Office teams are already using backend data and user feedback to identify which areas require reinforcement. The modular architecture and content management system (CMS) enable quick adaptations, ensuring Bebbo can **evolve dynamically in response to country-specific baselines, language needs, and policy alignment**.

In summary, while we support differentiated focus based on context, we believe this should be executed through **enhanced personalisation, not topic exclusion**. Bebbo’s strength lies in being able to adapt without fragmenting its value as a comprehensive and holistic parenting platform.

Actions planned	Responsible Office	Responsible Person	Expected completion date	Implementation stage: Not started Underway Completed Cancelled	Actions taken	Supporting documents
4) Publish and integrate more specified content for parents of children with disability, parents interested in gender transformative parenting and climate resilient families.	ECARO	ECARO ECD	December 2025	Underway	Curation of additional content that is applicable to parents with unique parenting scenarios to provide users with additional strong, positive parenting knowledge.	
5) Publish and integrate pregnancy content and review and adaptation of pregnancy content for Bebbo countries.	ECARO	ECARO ECD	December 2025	Underway	Publication of over 150 new pregnancy articles completed, which have been reviewed by RO Health section colleagues, will provide parents with specialized information regarding weekly development and baby preparation, labour and delivery, and where to find support throughout pregnancy. The adaptation process for different country contexts is currently underway.	

6) Continue integration of user feedback from app surveys, focus groups and Bebbo Parents' Council to refine context-specific content	ECARO	ECARO ECD	December 2025	Underway	Annual exercise (in Q4 of every year) of analysis of feedback received has been instituted.	
7) Guide and encourage UNICEF Country Offices in layering app content to match different parenting stages (0–6 years), using real-time usage and survey data.	ECARO	ECARO ECD	December 2025	Underway	Regular coordination calls for guidance dissemination and individual CO dashboard inputs shared to encourage more CO content being added.	

Evaluation Recommendation or Issue 3: Adjust app focus based on the comparative advantage to generate knowledge: the findings suggest that for many of the targeted outcomes, awareness itself is an effective intervention. This suggests that some outcomes (such as vaccine knowledge) might be more effective through other media and an app should focus on the outcomes that require sustained engagement.

Management Response: (Agree, Partially Agree, Disagree): Partially agree

If recommendation is rejected or partially accepted, report reasons: UNICEF ECARO acknowledges the insights underpinning this recommendation and agrees with the broader principle that Bebbo's value is greatest where **sustained engagement drives behavioural change**. However, we partially agree with the idea that outcomes such as vaccine knowledge should be entirely shifted to other media.

Bebbo's **comparative advantage** lies not only in delivering parenting knowledge but also in facilitating **continuous, contextual micro-learning** linked to children's developmental stages. While single-point interventions (e.g., posters, websites) can be effective for raising initial awareness on topics like immunisation, Bebbo strengthens this knowledge through **repeated nudges, personalised reminders, development trackers, and interactive health tools** that are embedded into the daily caregiving experience and respond to many parents' need for ongoing support and actionable guidance.

It is also important to note that **user behaviour analytics** (through Google Firebase) show strong organic engagement with vaccine-related articles and health tools within the app. Further, anonymised data presented through the app dashboard shows that, on average, users read Vaccination articles more frequently than any other category—demonstrating a strong, organic interest in content affecting child health and development outcomes. Importantly, Bebbo's information architecture is designed to support sustained engagement: parents are presented with new articles and nudges on development and vaccination that align with their child's specific age and stage. This approach encourages continuous learning and usage, and the data validates that users do in fact return to the app to access new, relevant information. Push notifications and tailored content feeds are helping to reinforce health knowledge beyond a single exposure.

Moreover, Bebbo’s integrated diverse health content has proven particularly valuable for **first-time parents, rural caregivers**, and contexts where misinformation is high—offering an accessible, trusted digital environment that complements traditional health messaging campaigns.

Going forward, UNICEF will further strengthen the focus on those outcomes that **truly require sustained engagement and action**. In essence, we are enhancing Bebbo’s ability to **match content intensity to user behaviour and needs**—optimising it as a cost-effective digital extension of nurturing care programmes. **In addition, artificial intelligence would be explored for integration to provide more personalized experience to users.**

Actions planned	Responsible Office	Responsible Person	Expected completion date	Implementation stage: Not started Underway Completed Cancelled	Actions taken	Supporting documents
8) Enhance and gamify app nudges and reminders through push notifications and dynamic home screen messaging aligned with child’s developmental stage	ECARO	ECARO ECD	December 2025	Not started	Planned for Phase I of Bebbo 2.0	

Evaluation Recommendation or Issue 4: Improve app usage: The current retention and usage rates are not sufficient for Bebbo to have impact at scale. Steps should be taken to make the app more engaging for caregivers (and service providers). These implementation issues should be addressed through formative and qualitative research (e.g., User experience (UX) studies to understand what would drive better user engagement, acceptability, accessibility, and reach) before further scaling the app.

Management Response: (Agree, Partially Agree, Disagree): Disagree

If recommendation is rejected or partially accepted, report reasons: UNICEF ECARO respectfully disagrees with the framing of this recommendation and the assertion that Bebbo’s current retention and usage rates are insufficient to achieve meaningful scale and impact.

Real-world usage data and global demand tell a different story. As of April 2025, Bebbo has been launched in **17 countries, with 2 more onboarding**, and further expansion under active discussion across multiple regions. In several countries, Bebbo is among the top **parenting guidance**

app in app store listing (Source: Sensor Tower). Demand from governments, UNICEF Country Offices, and parents themselves confirms that Bebbio fills a critical gap in early childhood development and parenting support programming.

Moreover, the engagement numbers calculation used in the study is not the industry standard benchmark for looking at mobile apps. Mobile apps are typically assessed using Day 1, Day 7, and Day 30 retention metrics. On these, **Bebbio performs better than the global industry average for parenting and education apps** (Source: AppsFlyer - <https://www.appsflyer.com/resources/reports/app-retention-benchmarks>).

- **Day 1 retention rate:** 22.4% (as on 27 April 2025) (global average for education apps: 21%)
- **Day 7 retention rate:** 7.3% (as on 27 April 2025) (global average: 5.6%)
- **Day 30 retention rate:** 4.7% (as on 27 April 2025) (global average: 2.1%)
- **User stickiness (WAU/MAU ratio):** 0.35, indicating strong week-to-week engagement (industry good range: 0.3–0.5)

It is also important to highlight that **real-world usage** (captured via Firebase) differs significantly from the evaluation’s findings. This divergence can potentially be attributed to **programme integration with government partners and health service providers** — a critical component of Bebbio’s implementation that was not part of the study’s self-guided online recruitment model. In countries where Bebbio is introduced through trusted health workers, maternity clinics, or birth registration processes, user retention, trust, and impact could be significantly higher.

Unlike commercial entertainment apps that are designed for daily use, Bebbio supports **episodic but critical interactions**, aligned to key parenting milestones and challenges. Its design intentionally prioritises **trusted, on-demand, life-stage-relevant guidance** rather than daily compulsive use.

At the same time, UNICEF fully recognises that **user experience innovation** must continue. As UNICEF prepares for Bebbio 2.0, UX research, Parents’ Council feedback, and analytics monitoring are all being actively used to drive improvements, including:

- More intuitive onboarding journeys,
- Gamified engagement strategies (badges, milestones, streaks),
- Dynamic, personalised push notifications,
- Redesigned growth monitoring and health tracking tools,
- Upcoming AI-driven content personalisation.

All of these are being incorporated into the phased rollout of **Bebbio 2.0**, ensuring that user experience continually evolves with user needs.

In summary, while we support continuous user experience enhancement, we disagree that Bebbio’s usage metrics are insufficient for impact. The platform is already achieving meaningful engagement, trusted uptake through service provider channels, and strong global expansion momentum. Planned improvements will only strengthen its position as a leading digital public good for parenting support worldwide.

Actions planned	Responsible Office	Responsible Person	Expected completion date	Implementation stage: Not started Underway Completed Cancelled	Actions taken	Supporting documents

9) Conduct UX redesign of Bebbo app (mobile and web versions), focusing on user onboarding, engagement, and intuitive navigation.	ECARO	ECARO ECD	December 2025	Not started	Planned for Phase I of Bebbo 2.0	
10) Continue to focus on service provider promotion pathways into Bebbo programme strategies to enhance trust-based onboarding and retention	ECARO	ECARO ECD	Ongoing in different COs	Underway	Continued collaboration with COs to increase integration into programming and working closely with service providers for Bebbo. More trainings for service providers are also being organised.	

Evaluation Recommendation or Issue 5: Adopt a lean approach to evaluation: UNICEF should weave a continuous evaluation mentality into every stage of the development lifecycle of all its digital solutions. Evaluation teams or tools can be used to assist the product team in testing hypotheses that are core to the theory of change of the intervention.

Management Response: (Agree, Partially Agree, Disagree): Agree

If recommendation is rejected or partially accepted, report reasons: UNICEF ECARO agrees with this recommendation and strongly supports embedding **continuous evaluation and adaptive learning** into the full lifecycle of Bebbo’s development, deployment, and scaling.

We recognise that traditional, one-off evaluations — while valuable — are insufficient to fully capture the dynamic, iterative nature of digital products, especially in fast-evolving fields of mobile app where the technology, user interfaces and commercial apps are rapidly evolving.

In practice, Bebbo has already begun operationalising a **lean evaluation mindset**, including:

- Ongoing **Firestore analytics** tracking core user behaviours (e.g., onboarding, content reading, milestone tracking),
- Regular **user surveys** and satisfaction feedback integrated into the app experience,
- **Quarterly dashboards** tracking key engagement and thematic trends,
- Structured **feedback loops** with the Bebbo Parents’ Council (parents from 10+ countries),
- **Focus group discussions** conducted with end users and service providers across several countries,
- **A/B testing** of design variations for onboarding flows and push notifications (planned).

Moreover, UNICEF is also planning a **mixed-methods evaluation** combining quantitative analytics with qualitative insights.

Actions planned	Responsible Office	Responsible Person	Expected completion date	Implementation stage: Not started Underway Completed Cancelled	Actions taken	Supporting documents
11) Continue ongoing monitoring and reporting of user survey data, Firebase analytics, and feedback from Parents' Council	ECARO	ECARO ECD	Ongoing	Underway	Ongoing/regular monitoring and reporting of user survey data, Firebase analytics and feedback from Parent's Council	
12) Improve Bebbio Power BI dashboards to allow real-time monitoring of engagement trends, content popularity, and tool usage	ECARO	ECARO ECD	March 2025	Completed	Enhanced dashboards available with country-level filters to track user journeys by age group, topic engagement, and tool usage.	
13) Explore integration of A/B testing pipelines for major app enhancements (onboarding flows, notifications, engagement features)	ECARO	ECARO ECD	December 2026	Not started	A/B testing framework scoped for implementation during Bebbio 2.0 rollout (subject to adequate financial resources)	

Evaluation Recommendation or Issue 6: Allocate resources for testing: UNICEF should allocate funds at the start (and throughout) of any digital solution project to set-up the required evidence pipeline to scale-up in a strategic way.

Management Response: (Agree, Partially Agree, Disagree): Agree

If recommendation is rejected or partially accepted, report reasons: UNICEF ECARO agrees with this recommendation. Allocating dedicated resources for evidence generation, user research, and ongoing testing is fundamental for ensuring the scalability, relevance, and impact of digital solutions like Bebbio.

In recognition of this, UNICEF has already embedded **evaluation, monitoring, and research costs** into Bebbio's operational planning and fundraising strategies. Since Feb 2025, evidence-generation activities have been treated as core investments, not ancillary tasks, ensuring that programme performance, user behaviour, and system-level outcomes can be continuously monitored, assessed, and improved. Bebbio is committed to **growing with**

evidence, scaling with proof, and evolving with user feedback, ensuring that investment in parenting support generates meaningful, measurable improvements in child development and family wellbeing.

Actions planned	Responsible Office	Responsible Person	Expected completion date	Implementation stage: Not started Underway Completed Cancelled	Actions taken	Supporting documents
14) Secure and allocate budget for ongoing M&E, including user research, dashboards, and mixed-methods evaluations	ECARO	ECARO ECD	March 2025	Completed	Research is being included in all fundraising efforts.	
15) Continue regular engagement with OOI, PG, and regional evaluation teams to align Bebbo evidence agenda with wider UNICEF digital learning priorities	ECARO	ECARO ECD	Ongoing	Underway	Ongoing conversations and discussions.	