



Learning Memo: Teacher Professional Development and Curriculum Development

October 2021

Introduction

Kenya Play Project (KPLAY) is a holistic, systemic, gender responsive approach to introducing and scaling Learning Through PLAY with Technology (LTPT) in Kwale and Kilifi Counties in the coastal region of Kenya. Aligned with Kenya's new national Competency Based Curriculum (CBC), KPLAY will provide actionable methodologies to help teachers build the STEM and soft skills required by the CBC and for Kenya's vision for its future.

KPLAY is implemented by IREX in Kenya, in partnership with Humans Who Play (HWP) and is funded by Lego Foundation. The overall goal is to equip teachers as LTPT experts and champions, and to create a Kenyan-owned LTPT scaling model for coastal Kenya. Our expected outcomes are teachers gain skills and knowledge and apply LTPT in the classroom, school leaders understand benefits of LTPT and allocate resources for its integration in the classroom, trained coaches provide ongoing support to teachers, and parents and community leaders support LTPT in schools and advocate for it at county level.

The Project's mission is to build the capacity of 2,160 teachers to effectively implement LTPT in classrooms and assist 600 school leaders, 310 teacher leaders, and 30 system-embedded coaches to support these teachers.

Ultimately, the project will equip 90,000 students with algorithmic, computational, and design thinking skills, foundational STEM skills measured by Kenyan exams, and the creative, learning-to-learn, and collaborative skills the CBC has introduced.

In 2021, the project has worked with 11 schools in Kwale and Kilifi Counties. Further the project has worked closely with education stakeholders at National and County level securing the necessary permissions for interactions with schools and teachers.

This learning memo provides learning from the process of developing the training curriculum and the process of conducting Teacher Professional Development. These two areas have been the core focus of the project as they determine the efficiency of scale up from 2022-2024. The learning has been achieved through an analysis of data collected from teachers and school leaders through surveys as well as one-on-one and group discussions with stakeholders and school leaders.

Learning from Teacher Professional Development

The purpose of the Teacher Professional Development (TPD) is to ensure that teachers and school leaders have the knowledge and skills for integration of LTPT in the classroom. It is anticipated that with the necessary knowledge and skills, School Leaders will allocate spaces and resources that support playful learning in their schools. The main activities have been the Training of Trainers (T.O.T) and the TPD Workshops using a virtual and hybrid approach.



To accomplish these key activities, the project has had to consider the Covid 19 Pandemic, an already existing system for TPD led by Government and varying ICT capacities and resources in the targeted schools. In this pilot period the following key learnings have been derived and will inform implementation from 2022 onwards.

A hybrid approach during the COVID Pandemic

The world has been working to reduce the spread and impact of the COVID 19 Pandemic for over a year now. In Kenya, preventative measures have included a limit to public gatherings greatly challenging the model of training delivery in targeted counties. In this pilot phase, the project's target was to train at least 70 teachers, which exceeded the acceptable number of people for public gatherings by Government. In its original design the training workshops were intended to be in-person but with the challenge of the Covid 19 Pandemic, the KPLAY team was able to innovate to a hybrid approach to secure project impact while ensuring the safety of the facilitators and beneficiaries.

The development of the hybrid approach began in May 2021 during the first TPD workshop which was conducted virtually. In this workshop, the teachers gathered in their respective schools and interacted with facilitators through Zoom. The training reached teachers from all 11 schools in the pilot over a 3-day period, for 3 hours on each day. The project provided a laptop computer, a MiFi for internet connection, stationery and materials for the activities and masks and sanitizers for health and safety.

In July, the project was able to upscale this into what we now call the hybrid approach. The teachers gathered in person in their schools and interacted with the workshop facilitators and colleagues from other participating schools over Zoom as they did in May. However, they were this time supported by the System Embedded Coaches comprising of the Headteacher, CSO and Play Ambassador in their respective school. The coaches had prior knowledge of the content for the TPD from their participation in a Training of Trainers (TOT) Workshops in May and June. For the July Workshop the project pre-loaded the Mifis provided in May with data bundles, provided computer speakers to support audibility and two schools also received projectors. Each school also received materials and stationery for the activities as well as masks and sanitizer for health and safety.

The hybrid approach is now fully instituted as the KPLAY approach following its proven success. With the upscale to 100 schools each year from 2022 and the uncertainty of the Covid Pandemic, this approach, we believe, will be most valuable for building efficiency in delivery of training as well as conducting coaching and mentoring.

We have learned that what is critical to the success of the hybrid approach is:

1. Ensuring that the System Coaches are well trained and equipped in their in-person support to the schools. This is achieved through the T.O.T and continuous communication and collaboration with the Coaches in between the workshops.
2. Ensuring timely provision of materials for the training activity and as much as possible conduct a test run of the session to ensure that schools are well prepared to especially use the technology.
3. Prior knowledge of the ICT capacity of the school including internet coverage, access to computers and projectors is critical. The hybrid approach has been successful partly due to already existing Ministry of Education investment in schools in the form of projectors and laptop computers in some of the schools.
4. Prior knowledge of the level of digital literacy among teachers and school leaders. This is necessary since both CBC and the integration of LTPT require the teachers and school leaders can use a computer or the Government issue tablets for teaching in the classroom.

Leveraging the existing Teacher Professional Development (TPD) System



Interactions with school leaders and education officials during workshops and school visits has provided a deeper understanding of the existing system for Teacher Professional Development. The Teacher Service Commission (TSC) has been conducting regular TPDs through the Curriculum Support Officers (CSO). The CSOs conduct training on CBC to provide the necessary skills and guidance for the implementation of the curriculum. KPLAY Team had the opportunity to participate in one such training in Kwale County providing insights on how the training is done and the focus areas.

The CSO led Teacher Professional Development session are held every school term using an in-person format. Further to this, CSOs provide ongoing support to teachers by conducting classroom observations, support to teachers in clusters to

address subject needs of the overall transition to CBC. They therefore already have skills for training, coaching, and mentoring. This therefore makes them critical collaborators especially in the process of upscaling the project from 2022 to 2024.

To leverage this existing resource the project intends to focus the Training of Trainers (TOTs) to equip CSOs with skills to enable them serve as co-facilitators in the Teacher Professional Development on LTPT. These TOTs will ensure that in subsequent TPDs the CSOs take the lead in facilitating training sessions. After the Teacher Trainings the CSOs will be also collaborate with headteachers to conduct classroom observations. The results of the observations will inform additional support to teachers through coaching and mentoring. To facilitate the success of this strategy the project intends to:

1. Use TOTs to equip CSOs with content and skills for training and support to Teachers on the integration of LTPT. This includes enhancing their capacities to conduct training and coaching through digital platforms.
2. Collaborate with CSOs in the roll out of the KPLAY Coaching Model. This Model will ensure continuous support to Teachers in their integration of LTPT during and outside of the training cycle.

3. Create a schedule for trainings as well as coaching and mentoring sessions. The KPLAY Training Team will help manage this schedule ensuring CSOs have access to content and resources to make the trainings and coaching sessions a success.
4. Develop tools that collect data at all levels of engagement with CSOs i.e., Training, Classroom Observations and Coaching to tracking of results and impact these activities are having on teaching and integration of LTPT.

Collaboration with Agha Khan Foundation

The project has identified the Agha Khan Foundation (AKF) as a key collaborator in the process of implementation. AKF has funding from Lego Foundation to work with Primary Schools in the Kilifi and Kwale with a focus on Early Childhood Education. While KPLAY's focus is largely on upper primary education, Grades 3 to 6 there exists many similarities in geographical coverage, content, and approach to training teachers. In this regard, the project will collaborate with AKF in the following ways:

1. School selection: This will help to reduce any overlaps that may impede both projects as well as prevent overwhelming schools with external projects. Where both KPLAY and AKF are working in the same school there will be a clear progression and distinction in our different areas of focus i.e., ECD for AKF and Upper Primary for KPLAY.
2. Stakeholder engagement – Both AKF and KPLAY are guided in their work by a local stakeholder committee consisting of Education Officials representing the National and County Government. Due to the similarities of the participants in the committees, ultimately the intention is to hold a joint stakeholder forum for both projects to enhance the complementarity of results and impact and consolidated engagement.
3. Teacher Training and dissemination – Both AKF and KPLAY are providing training to teachers. In our collaboration, we will share our training content to ensure that there is a rich pool of resources for both projects to use. Where possible, the projects will conduct joint teacher trainings.

IREX and AKF will formalize this collaboration in an MoU to be signed by the end of the year.

Learning from Curriculum Development

The KPLAY Curriculum is expected to be a resource for Teacher Professional Development. The Curriculum will complement existing resources that the Government has in place through the Ministry of Education and Kenya Institute of Curriculum Development (KICD). Our partner Humans Who Play (HWP) have led the process of developing the KPLAY curriculum. The KPLAY Training team has supported this by ensuring contextualization of content and the integration of local knowledge and resources into the curriculum. In this section we will look at the key lessons we have learned in the process of curriculum development considering that devolution in Kenya has resulted in a division of education roles and structures from National to County level

The learning in this area has therefore been borne out of the process of balancing stakeholder expectations at these levels against the outcomes the project is pursuing.



ICT Readiness

ICT capacity in schools is critical for the success of CBC as well as the integration of LTPT. Digital literacy is mainstreamed across all the learning areas of CBC and KPLAY activities are targeted at enhancing this.

The project conducted an ICT capacity assessment of all 11 schools. The assessment confirmed that Government has made investments, in varying degrees, in providing ICT equipment in the form of Tablets for learners and Projectors and in some cases a laptop and an internet connection device. However, through feedback received from the school leaders and teachers, the capacity to use this equipment is low and often they are stowed away and go without being used in the classroom. The project has therefore classified schools as follows:

1. High-tech – School has access to computers (desktop and laptops), internet, and tablets (teacher facing and learner facing) and are using these regularly for teaching.

Low-tech – School has limited access to devices, primarily the government issue tablets (teacher facing and learner facing) with a poor internet connection. The school rarely uses them in teaching due to low teacher confidence and capacity to use them.

Special Needs Education Inclusion

The KPLAY Project is committed to Special Needs Education inclusion. The Project has made deliberate efforts to learn how best to do this during Teacher Professional Development and Curriculum Development. In June 2021, the project conducted a Focus Group Discussion (FDG) at Kinango School for the Deaf in Kwale County. The session brought to light the challenges teachers experience in the transition to CBC and provided insights into how KPLAY Project activities can cater to the expectations of Special Needs Educators. Consequently, the project reflecting on the following key learnings:

1. Since there are diverse categories of impairments but limited time and resources, the project will focus its special needs integration to hearing impaired needs. This means that in selecting special needs schools, the project will be working with Schools for the Deaf in Kilifi and Kwale Counties.

2. No-Tech - School has no access to additional devices other than the government issue tablets (teacher facing and learner facing) with no internet access. The school does not use them in teaching due to no capacity and confidence among the teachers to use them.

From our assessment, majority of the schools fall within the low-tech category largely because of low levels of the teacher confidence and capacity to use the available devices for teaching. On upscaling the project to 100 schools, it is anticipated that there are likely to be more low-tech and no-tech schools. This is due to the rural nature of the two counties which would present challenges in access to devices as well as the extent of the teachers' digital skills.

The process of teacher professional development will include building digital skills and confidence among teachers. Further activities in the curriculum will focus on a low-tech environment with a focus on some use of ICTs and more use of locally available materials. Further the initial intention to introduce robotics has been deferred and the focus will therefore be on creative coding using the Scratch platform which is adaptable to a low-tech environment.

2. Leverage the experience of CSOs who are dedicated to Special Needs Education and collaborating with them in providing playful learning TPDs to teachers.
3. Curriculum activities will be more visual in nature and as much as possible promote group work because this is the approach more suited to hearing impaired learners. KPLAY will leverage on the experience and expertise of Kinango School for the Deaf teachers to simulate these activities
4. Consider the development for activity specific guides for LTPT for the Special Needs Teachers. These include how to carry out lesson planning and adapt the Kenya Sign Language while working with these activities.

Competencies and Grade Selection

The Project's focus is on Grades 3-6. However, the CBC roll out has taken a cascading approach. At KPLAY's inception, the curriculum had only been rolled out to Grade 4. It was therefore not possible to achieve the targeted number of teachers per school within the target grades without extending to Early Childhood (PP1 and PP2) and Grades 1 and 2.

KICD who are responsible for curriculum development and regulation are keen to see the curriculum's impact at Grade level. Further The nature of devolution is that Early Childhood Education (ECDE) which is PP1 and PP2 falls under the jurisdiction of the County Government but Grades 1-6 fall under the National Government. This therefore necessitates stakeholder engagement at both levels of Government.

IREX and HWP therefore embarked on a detailed analysis of the opportunities and resources required to deliver content keeping in mind stakeholder expectations. The conclusion was that activities would be aligned to CBC Competencies as given by KICD. Consequently, our curriculum will be adaptable across all grades even as focus of impact measurement relies on Grades 3 to 6. The competencies of focus are communication and collaboration, critical thinking and problem solving, creativity and imagination, digital literacy and learning to learn. Ultimately, the curriculum will enable teachers to integrate LTPT in a way that ensures learners are able to:

1. Apply creativity and critical thinking skills in problem solving.
2. Explore their immediate environment for learning and enjoyment.
3. Practice hygiene, nutrition, sanitation, safety skills to promote health and wellbeing.
4. Apply digital literacy skills for learning and enjoyment.

Further, in developing the curriculum, HWP is working to ensure that the content:

1. Easily adapts to various cultural and educational settings and learning levels
2. Easy to implement in the most disconnected environments
3. The value of LTPT is demonstrable and observable
4. Students and teachers are engaged in meaningful fun
5. Safe products for 8- to 11-year-olds (i.e. cost for tech and cyber exposure)

The Project is also now better versed on the detailed process of accreditation with KICD. Our curriculum will be subjected to review by a committee established by KICD who will assess its relevance and suitability to contribute to the objectives of CBC. Ultimately, KICD expects that our curriculum will be integrated as a resource for Teacher Professional Development in CBC.

Conclusion and next steps

The learnings on the TPD and Curriculum Development are critical as we approach the end of the pilot period and prepare for upscaling. The project remains committed to Stakeholder engagement and adherence to Government policy. The project therefore intends to continue its pursuit of the following:

1. Collaboration with KICD for the accreditation of the curriculum. KPLAY and Humans Who Play will continue to work together to complete the curriculum adhering to the regulations and guidance of KICD's review
2. Partnership agreement with Aga Khan Foundation. This will formalize the collaboration areas identified to ensure mutual benefit
3. Teacher Professional Development Activities- The project will continue to conduct the TOTs with school leaders and Teacher Professional Development workshops. The project will focus on creative coding in the next set of trainings in line with the intention to build confidence for use of ICTs among the teachers.