

CLOUD BASED LEARNING PLATFORM

Milestone 4 Update

Grant # AID-OAA-F-13-00033

June 2 , 2014



Update on project implementation including any challenges encountered, and plans to mitigate them.

All milestone deliverables have been achieved. We faced two major issues with initiating rollout that delayed us by 6 weeks.

1. School session start date was delayed by 3 weeks. Village parents wanted students to stay home for an extended period. School administration met with parents and agreed to opening school at a later date as requested by parents
2. Internet connection at NPS became non-operational. Pixatel worked with BSNL (local ISP) to have a second dedicated internet connection installed at the school. BSNL authorized the connection but could not find the resources to install a new line to the National Public School. Pixatel hired our own labor and brought wire to install from the BSNL hub in Taran Taran City to the National Public School in the village.

Delivery of report outlining results of teacher training, kicking off pilot at 1st school site. The report should also describe the randomization, including any challenges that could affect internal validity.

Teacher training was conducted in March by Prof. Supreet Kaur and follow-up training has been conducted by Jasjit Singh, SVP of Pixatel Field Operations over the past month. Below is the protocol that has been finalized for the National Public School.

One section in each of Grades 3, 4, and 5 has been assigned to the treatment group and the other section in each respective grade has been assigned to the control group.

Within a grade, both the treatment and control group sections will be taught by the same teacher. This will improve the internal validity of the evaluation.

In addition, both groups will spend the same amount of class time on mathematics education—also a necessary requisite for internal validity. The control group sections will receive traditional instruction. In the treatment group, the teacher will have the discretion to decide when (and how often) to use the tablets for reinforcement and practice.

Based on feedback from the teachers, we decided to move the tablets from the library where we were planning on offering supplemental practice to a dedicated classroom. The tablets have been installed in a classroom dedicated for this purpose. Math class for the treatment sections will be held in this room. The classes will meet there each day. The room has a blackboard (for traditional instruction) as well as the tablets set up. The teacher will have the flexibility to decide what portion of class time to dedicate to instruction on the chalk board and practice on the tablets.

A Pixatel field staff member will be based at the school. This person will ensure the tablets are fully charged, trouble shoot problems during the initial piloting period, and manage the syncing of tablets with the cloud server. This will help ensure that we receive early indicators of any issues.

Tablet Installation

- 35 Tablets have been installed in the dedicated classroom for mathematics instruction and will be used by each treatment group section in grades 3, 4, 5.
- Wifi is accessible in the classroom for syncing the software with the Cloud Platform
- Each student in the treatment group has been assigned to a tablet based on their Roll Number.

Time Allocation

Class time is structured so that students spend 35-minute periods on a given subject each day. The teacher will assign treatment group students tablet instruction time on an average of three days a week for half of the class time.

Monitoring Protocols

- Treatment group students:
 - Each student has been assigned a unique userid and password to access the application.
 - The software and the cloud platform will monitor how often the tablets are used and track each student's progress.
 - Each teacher will be able to view student progress on a daily basis and monitor areas where students are exceling or doing poorly.
- All students:
 - Students in both treatment and control groups will be given paper and pencil assessment tests every 2 months

A comprehensive spreadsheet details metrics being collected is attached to this milestone update.

Complete local curriculum integration with math application

Local curriculum has been integrated with the Math Whiz application

Pre-test of all students in study completed

Pretest has been administered to all treatment and control groups students in grades 3, 4, and 5.

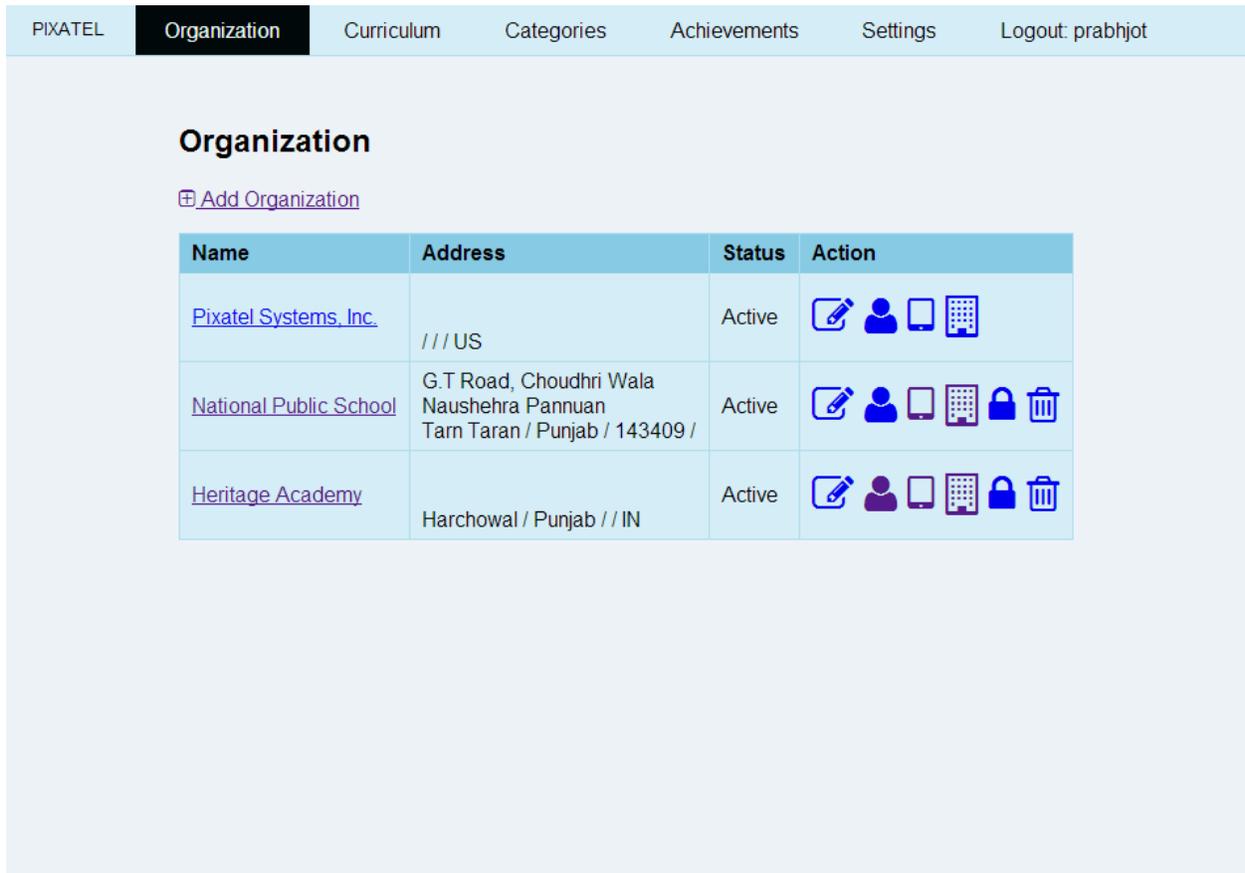
Phase 1 (Platform and product development) completed

Phase I MathWhiz Application and Backend Platform development has been completed. Design architecture allows each device can support multiple students so one set of devices can be shared across all students.

Modify application to add support for different educational standards

MathWhiz application and platform have been modified to support different standards. Different curriculum standards can now be created and deployed at any school site. Below screenshots show school site setup and student assignment to devices n Pixatel's backend platform.

Image 1. School Settings



The screenshot shows the Pixatel backend platform interface. The navigation menu at the top includes: PIXATEL, Organization (selected), Curriculum, Categories, Achievements, Settings, and Logout: prabhjot. The main content area is titled "Organization" and includes a link to "Add Organization". Below this is a table listing organizations.

| Name | Address | Status | Action |
|--|---|--------|--|
| Pixatel Systems, Inc. | /// US | Active |     |
| National Public School | G.T Road, Choudhri Wala Naushehra Pannuan Tam Taran / Punjab / 143409 / | Active |       |
| Heritage Academy | Harchowal / Punjab // IN | Active |       |

Image 2. Device Settings

| PIXATEL | Organization | Curriculum | Categories | Achievements | Settings | Logout: prabhjot |
|--|--------------|---------------|---------------------|--|---|------------------|
| <h3>National Public School: Devices</h3> <p>Add device</p> | | | | | | |
| Device Name | Sync key | Sync Interval | Status | Students Assigned | Action | |
| NPS-1 | RW3S61NE4V | 21600 seconds | Active / Not Linked | 3A-1-Arshpreet - Arshpreet Kaur 4A-1-Arshdeep - Arshdeep Kaur 5A-1-Amreen - Amreen Kaur |    | |
| NPS-2 | AOLXLE3RZO | 21600 seconds | Active / Not Linked | 3A-2-Diya - Diya Nayyar 4A-2-Akashdeep - Akashdeep Kaur 5A-2-Amarjit - Amarjit Kaur |    | |
| NPS-3 | WXFCGBZSWB | 21600 seconds | Active / Not Linked | 3A-3-Jasmeet - Jasmeet Kaur 4A-3-Komalpreet - Komalpreet Kaur 5A-3-Gurleen - Gurleen Kaur |    | |
| NPS-4 | 3B01YRZW5Q | 21600 seconds | Active / Not Linked | 3A-4-Khushpreet - Khushpreet Kaur 4A-4-Manpreet - Manpreet Kaur 5A-4-Harshita - Harshita Arora |    | |
| NPS-5 | MK1NXFIW2T | 21600 seconds | Active / Not Linked | 3A-5-Lovepreet - Lovepreet Kaur 4A-5-Manvir - Manvir Kaur 5A-5-Harshdeep - Harshdeep Kaur |    | |
| NPS-6 | 17K628GDWK | 21600 seconds | Active / Not Linked | 3A-6-Manisha - Manisha Devgan 4A-6-Hardilpreet - Hardilpreet Kaur 5A-6-Jaspreet - Jaspreet Kaur |    | |
| NPS-7 | 137B0CTPCR | 21600 seconds | Active / Not Linked | 3A-7-Nazmeen - Nazmeen Kaur 4A-7-Navneet - Navneet Kaur 5A-7-Jashanpreet - Jashanpreet Kaur |    | |
| NPS-8 | 1363F5AIW2 | 21600 seconds | Active / Not Linked | 3A-8-Parneet - Parneet Kaur 4A-8-Akashdeep - Akashdeep Singh 5A-8-Jashanpreet - Jashanpreet Kaur |    | |

Img 3. Add Student

PIXATEL **Organization** Curriculum Categories Achievements Settings Logout: prabhjot

Heritage Academy : 5A

Add Student

User Id 5A-05-Anisha

Password

Display Name Anisha Sharma

Device SHA-5 ▾

Save