

e-LEARNING JAMAICA COMPANY LIMITED

OVERVIEW AND BRIEF STATUS REPORT AS AT END SEPTEMBER 2012

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1. MANDATE OF THE ORGANISATION

The e-Learning Jamaica Company Ltd (eLJam), established in March 2005, is a limited liability company, and an agency of the Ministry with portfolio responsibility for Telecommunications. The Company is managed by a Board of Directors appointed by the portfolio Minister.

The core functions of e-Learning Jamaica Company Limited, as approved by Cabinet, were:

- to implement an e-learning project in the high schools in the first instance
- to promote the infusion and integration of technology into the education system, and
- to act as the implementation arm of approved interventions through the Universal Access Fund established under the telecommunications Act 2000.

Once the matter of the education system was adequately addressed to the satisfaction of the Ministry of Education, the focus of the company would shift to Universal Access to telecommunication services such as internet and so on.

An amount of US\$50 million was approved by Cabinet in June 2005 to be accessed from the Universal Access Fund, to implement the initial project targeted at the high schools. The primary goal of the project was to utilize Information and Communication Technologies (ICTs) to contribute to an improvement in the quality of education in the high schools, to enhance the learning experience and to improve the level of passes in the school-leaving CXC CSEC examinations. This project was developed as a joint initiative with the MOE after much consultation with principals and teachers and other stakeholders, with its components targeted at providing digitalised instructional materials for teachers and students, computers and multimedia equipment, and training of teachers in the use of the technology in instructional delivery.

2. PROJECT COMPONENTS

◆ **Component 1 - Instructional Materials**

Acquisition / Development of a comprehensive set of standard ICT-based instructional materials for teachers and students in 11 subject areas:

- i. Teachers Instructional Materials (TIMs)
- ii. Student's Instructional Materials (SIMs)
- iii. Interactive Educational Software
- iv. Item Bank (multiple choice and extended questions and answers)
- v. Video-taped Lecture Series (for 'challenging' topics)

◆ **Component 2 - Technology Infrastructure for Storage / Dissemination / Access**

- i. Provision of ICT equipment, computer networks and related software to schools
- ii. Establishment of a Central Repository for Educational Materials (CREM) to store, reproduce, continuously update, and distribute materials, and to include a web-based repository accessible over the broad-band network



- iii. Upgrade of the Education Management Information System (EMIS) at the MOE to enhance management and administrative capability
- iv. Broad Band Internet Access (to be provided by UAF Co. Ltd)

◆ **Component 3 - Teacher Training**

- i. Principals' Awareness and Orientation
- ii. Training of Teachers and Tutors in Teachers Colleges in 3 phases
 - a. Modern methodologies for delivery, change management
 - b. Training and Certification in basic ICT skills (to international standards)
 - c. Integration of ICT into the teaching/learning process (certification to ISTE standards)
- iii. Training of select group of lecturers to masters level to ensure sustainability

◆ **Component 4 - Remedial Support**

Collaborating with existing remedial interventions providing ICT-based materials and equipment and training of tutors and support personnel.

◆ **Component 5 - Continuous Assessment**

Introduction of standard examinations across the system at grades 7, 8, 9 (Grade 11 CSEC and Grade 10 CCSC, already in place).

3. PROJECT SCOPE

- 203 educational institutions
 - 166 public high schools
 - 6 public special schools (*students with learning and physical disabilities*)
 - 10 teachers colleges (*2 AV equipment only*)
 - 5 community colleges (*AV equipment only*)
 - 16 independent high schools
- Grades 7-11 (*pilot grades 10&11*)
- 11 subjects (*pilot 5*)
- Over 11,500 teachers (*pilot 2880*)
- Over 260,000 students (*pilot 37, 344*) (*2006 statistics*)

The technology deployment strategy is intended to directly impact on:

- Teacher Planning and Organization Capability/Research Capability
- Subject Matter Delivery to include student interaction, group work, individual work, whole-class delivery
- Student Assessment / Immediate feedback
- Student Self-help
- School Administration
- Individual interactive learning – Remedial

and is comprised of the following:

- Remedial/enrichment labs (desktops)
- Presentation kits for teachers in Grade 10&11 classrooms (laptop, multimedia projector and screen)



- Group type mobile lab (laptops/netbooks)
- Computers for library, resource room (desktops/laptops)
- Computers for staff room (desk tops/laptops)
- Network connectivity and presentation bundles for grades 10 & 11
- Audiovisual equipment (multimedia projectors, document cameras, digital cameras, interactive white boards, televisions)

The average allocation of equipment per school is as follows, with the independent schools being regarded as half schools, due to their smaller size:

• Servers	1
• Desktops	56
• Laptops	16
• Printers	3
• Multimedia projectors & Screens	5
• Document Cameras	4
• Scanners	2
• Digital Cameras	2
• Televisions	2
• DVD/CD Players	3
• VCR Players	2
• Interactive White Boards	1 fixed, 1 mobile

4. MAJOR ACHIEVEMENTS TO END SEPTEMBER 2012

i. Instructional Materials Component

- a. Teachers and Students Instructional Materials (TIMs and SIMs) for English, Mathematics, Biology, Chemistry, Information Technology, acquired and delivered to all public High Schools and Teachers Colleges, Building Technology, Physics and Spanish delivered to pilot schools only
- b. The Joint Board of Teacher Education (JBTE) Foundation – UWI Mona and University of Technology (UTECH)/University of Plymouth completed development of Govn-owned materials for the CXC CSEC syllabus for English, Mathematics, Chemistry and Biology; delivered to all schools and placed on e-LJam website. Development of materials for the remaining seven subjects in progress – Information Technology and Building Technology (UTECH), Physics, Geography, Spanish, Social Studies and Integrated Science (UWI/JBTE)
- c. 40 video lectures produced, 10 each for English, Biology, Mathematics and Information Technology, and placed on the e-LJam web-site, delivered to schools on DVDs and broadcast by PBCJ as of February 2010. Development in progress for next 6 subjects
- d. Over 18,000 items (test questions) approved covering all 11 subjects and grades 7-11, provided on DVDs to all project schools and placed on e-LJam web-site. Item Bank used by students to revise for CXC CSEC examinations since 2009
- e. Educational Software for English and Mathematics sourced and being trialled in 30 low-performing schools in a effort to improve the literacy and numeracy skills at Grades 7 and 8



- f. Interim Central Repository for Educational Materials (CREM) established on e-LJam website on a Moodle platform, containing all materials acquired and developed. MOE reviewing the structure of the Media Services Unit to include the management of the repository.

ii. Technology Infrastructure Component

- a. Audiovisual equipment delivered to all 203 institutions
- b. Computer equipment and networks installed in 165 public High Schools, 5 Special schools, 15 Independent High Schools and 8 Teachers Colleges
- c. Technical specifications for the CREM finalised for hosting by the Ministry of Education (MOE), equipment delivered, awaiting building and electrical infrastructure by MOE. Alternative hosting site being sought.

iii. Teacher Training Component

- a. HEART Trust/NTA contracted to provide training and certification in Information and Communication Technology (ICT) skills, 11,400 teachers and lecturers and MOE Education Officers trained, over 7,600 certified to NCTVET NVQ-J level 1 & 2 standard, approx 550 systems administrators trained in network management, 250 teachers trained as trainers in ICT skills: online programme in place for continued training
- b. Mico University College, through the Mico Foundation, contracted to provide training in the integration of the technology in instructional delivery, 4,662 teachers trained, online programme developed and evaluated.
- c. Collaboration with the Joint Board of Teacher Education (JBTE) to provide scholarships to 15 lecturers from the Teachers Colleges to pursue an on-line Masters Degree in Education Technology with British Columbia University; All graduated with distinction, and will become the Education Technologist at their College and be responsible for ongoing training.

iv. Remedial Component

- a. Specialised equipment and software identified for Special Schools
- b. Technology-enrichment programme implemented in 30 low-performing schools as a pilot project to assist in improving the literacy and numeracy skills of students at Grade 7 and 8. The Remedial labs provided have been equipped with special Integrated Learning Software, and Volunteers have been hired to buttress the teaching and facilitation of the programme and involves more frequent cluster meetings, more frequent visits, and shorter reporting period. Mid year evaluation indicated improvements of 2 or more grade levels over the 6-month period

v. Continuous Assessment Component

Grade 9 Diagnostic Tests in English and Mathematics pilot administered

- in June 2009 to 29 schools,
- rolled out to 152 schools in June 2010, and including Integrated Science,
- to 164 schools in June 2011, adding Social Studies,
- to 175 schools in June 2012

Tests also administered at Grade 7 in 2011 and 2012.

Marking Software acquired for use with the Scanners provided to the schools



vi. Project Evaluation

JBTE Foundation (UWI Mona) contracted to provide Project Evaluation services. The following studies have been completed and results used to influence roll-out of project.

- i. Baseline Survey;
- ii. Implementation Process and Formative Evaluation.
- iii. Technology Utilization and Integration and e-LJam's Performance

vii. Expenditure/Commitments

At the end of September 2012, approx. US\$8.1million and approx. J\$3billion has been disbursed to e-LJam, totalling approximately US\$43.8million (converted at the rate of exchange applicable on the day of receipt of funds).

viii. School Implementation Support/Project Control/Sustainability

- a. MOU signed with the MOE, MOE responsible for policy guidelines and direction, instructional material standards, quality assurance and provision of building and electrical infrastructure.
- b. Subject Advisory Groups (SAG), led by MOE subject experts, established to ensure materials acquired meet required standards, supported by Subject Coordinators hired by the project
- c. Project Manager Building Infrastructure employed by e-LJam to validate requirements, assist in hiring contractors, monitor the works and liaise with MOE's building officers in signing off works and expediting payments to contractors.
- d. MOU signed with schools outlining responsibilities of each party with respect to project implementation, deployment, usage and security of equipment and materials
- e. School e-Learning Implementation Committees (SEIMC) established in all schools and colleges to oversee the implementation of the project and ensure buy-in/ownership, orientation and project update meetings held with all schools
- f. School Liaison Officer and Implementation Officers hired to work closely with and monitor implementation of project in schools, including regular visits, small cluster meetings, regular reporting
- g. MOE Regional Education Officers included in project monitoring activities
- h. Workshops held for subject teachers in Mathematics, English, Chemistry, Building Technology, Physics, reviewing all materials supplied to schools
- i. Equipment and Materials audit carried out in all project schools
- j. Focus on extensive training of School Administrators, Trainer of Trainers and Instructional Technology Lecturers as major sustainability strategy

5. SOME LESSONS LEARNED

- i. The importance of collaboration / involvement of stakeholders, schools, MOE, funders, to create buy-in and ownership and provide the necessary policy guidance. The involvement of the MOE through a Memorandum of Understanding is yielding benefits of access to the experience of the Ministry's technical staff. The School Committees will ensure the timely involvement and accountability of the school leadership

- ii. The need for continuous research and refinement and flexibility– nothing cast in stone - especially in the pilot phase, it is desirable to have the will to try out new approaches and have the capacity to act without fear of failure.
- iii. The need to use existing materials, methodologies, know-how to get materials into the schools in the short-term – need not invent the wheel – this will also allow evaluation of the interaction of teachers and students with the electronic and print resources - in general, it is a strategic goal of the project to own materials for open adaptation and dissemination
- v. The need to maintain focus on learning rather than technology. There is a concern that schools may be more interested in the capital acquisition than in the pursuit of project goals and objectives.
 - i. The need to estimate more realistic timeframes for all activities
 - ii. The need for strategy to maintain interest – eg in Item writing
 - iii. The need for strategy to minimize procurement delays
 - iv. The need for experts to be allowed the time to devote to providing critical input – standards, reviews, research, building contractor approvals etc
 - v. The need to ensure that a mechanism exists to ensure full integration of the interventions into the life of the schools
 - vi. The need to ensure a significant period for assimilation, reinforcement and practice in the schools after implementation of the technology and prior to the assessment of impact of the project

5. STRATEGIC FOCUS TO MARCH 2013

- i. To ensure total involvement and full adoption of project by and in schools, by increasing the level of implementation support to schools to include Asset Management and Client Response/Help Desk Systems, a comprehensive Maintenance and Replacement Strategy, Asset Insurance Coverage, an enhanced web-site
- ii. To complete computer network installation in remaining 1 Independent School, 1 Special school and 1 High school (recently built)
- iii. To provide specialised equipment to the Special Schools
- iv. To complete the technology enrichment pilot intervention and evaluate for future replication
- v. To complete the establishment of the CREM at an appropriate site
- vi. To purchase TIMs and SIMs for additional 3 subjects (Geography, Social Studies, and Integrated Science) and complete development and deliver TIMs and SIMs for remaining 6 subjects to all schools and colleges
- vii. To complete production of videos for the remaining 6 subjects and increase the Item Bank to 20,000 questions
- viii. To train an additional 2000 teachers in Technology Integration and fully implement the Education Technologist Function in the Teachers Colleges
- ix. To document project development and implementation processes and participate in orientation/hand-over sessions with the relevant MOE and school personnel
- x. To transfer the assets of the project to MOE by deed of gift
- xi. To framework e-Learning project No 2 targeted at the Primary and All-age schools and get approval and funding for its implementation