Improving Innovation Capacity and Scientific Skills Among Students: INVOCAB Project Highlights

Kerry-Ann Curtis,
Scientific Research Council
Project Background

- Application to the ACP-EU S&T Programme II
- Project duration: 4 years
- Target audience: Grades 4-6 and 9-11
- Direct impact: 8 schools, 2 Teachers’ Colleges
- Total funding €904,000
Project Objectives

- Promote Science to the young, by raising awareness through
  - Science Clubs
  - Innovation Competitions
  - Summer Camps
- Improve teacher competence in the transfer of knowledge and technical skills in Science subjects
- Improve critical thinking capacity and problem solving in students
Participating Schools

- Bull Bay All Age (St. Thomas)
- Seaward Prim & Jnr High (Kingston)
- Belle Castle All Age (Portland)
- Windsor Castle All Age (Portland)
- Carron Hall High (St. Mary)
- Horace Clarke High (St. Mary)
- Greater Portmore High (St. Catherine)

- Church Teachers’ College (Manchester)
- MICO University College (Kingston)
Project Methodology

1. Needs analysis
2. Select participating schools
3. Observation visits
4. Professional development workshops
5. Purchase relevant equipment
6. Summer camps
7. Science centres
8. Teaching manuals
9. Innovation competitions
10. Collate and analyse student grades
Selection and Observation

- 30 schools filtered based on predetermined criteria
- Baseline data collected from filtered schools
- 2nd round filtering to determine the final 8 participating schools
  - 4 primary schools, 4 high schools
- Termly visits scheduled to observe teaching style and make recommendations
Laboratory Equipment

Carron Hall High, St. Mary
Summer Camps

- One week residential
- 10 students per school
- Theory and practical activities
- Three years of camp
- Separate and joint activities for primary and secondary levels

Experiments during summer camp
Professional Development Workshops
Innovation Competitions

Students present to judges

Bull Bay All Age, St. Thomas
Numerical Results

- Eight 2-day professional development workshops held
- >120 teachers trained
- >200 students participating in summer camps
- Three 1-week summer camps held
- 10 institutions outfitted with laboratory equipment
Numerical Results contd.

- Primary level Mathematics pass rates* improved from an average of 35% to 45%
- Agricultural Science pass rates* improved from 87% at baseline to 96%

* direct beneficiaries
Recommendations

- Incorporation of a multi faceted approach works
- Teacher training to address behavioral issues
- Monitoring and evaluations schemes
  - Develop and assess teachers’ skills to improve school systems and overall results
  - Qualification of teachers
- Records management must be prioritized
  - Online platform to record and store grades
  - Digital report cards (uploaded on a website)
Thank You.