RASPBERRY PI IMPLEMENTATION REPORT

By:
Meru University of Science and Technology
At
Safari Park, Nairobi

30TH Oct 2015
Presentation Outline

1. Introduction
2. Sensitization
3. Teaching activities
4. Research
5. Projects and Exhibitions
6. Challenges
7. Students’ evaluation
8. Video documentary
9. Recommendation
Introduction

Team Members:
1. Daniel Maitethia (Team Leader)
2. Abkul Orto
3. Wycliffe Rono
4. Kinuthia Mugi
Sensitization
Teaching Activities
Crop stress monitoring setup
Crop Stress monitoring
Projects and Exhibitions
Machakos CUE exhibition (17th – 20th March 2015)
Projects and Exhibitions
Nairobi NACOSTI Exhibition Week (11th – 15th May 2015)
Projects and Exhibitions
Meru ASK Show (June 2015)

Hey There! We are just about to begin learning using the raspberry pi. This will be a very enjoyable activity which you will all like.

Before we continue we have to make sure that the teacher has approved this so enter your name and your teachers name below:

Your Name/ Group name

Teachers Name

Now what's left is for us to pick a subject... just click on any one:

Mathematics
Science

English
Social Studies

Kiswahili
Technology

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Projects and Exhibitions
Meru Investment Conference (25th – 27th June)
Results
Students Trained
Departments

61.5%

38.5%

IT

PHYSICAL SCIENCES
Units Taught

- Computational Physics: 38.5%
- Object Oriented Programming II: 19.2%
- Fundamental of Computer Programming: 42.3%
Students Feedback
Previous Knowledge of RPi

- Yes: 24%
- No: 76%
Ease of Use

- Very Hard: 12%
- Hard: 32%
- Easy: 40%
- Somehow Easy: 8%
- Very Easy: 8%
Usefulness of RPi

96.2% Yes

3.8% No
Recommended Year of Study

Year 1: 76%
Year 2: 24%
Proficiency After Training

- Not Proficient: 9.1%
- Somehow Proficient: 22.7%
- Profficient: 22.7%
- Very Proficient: 36.4%
- Excellent: 9.1%
Use of RPi in Other Units

- Yes: 68%
- No: 32%
Intention to use RPi in Future

73.1% Yes
26.9% No
Students’ Results after Training

Fundamentals of Computer Programming

- A: 9%
- B: 36%
- C: 36%
- D: 18%
Students’ Results after Training Cont...

Computational Physics

- A: 20%
- B: 50%
- C: 20%
- D: 10%
Students’ Results after Training Cont..

Object Oriented Programming II

B: 50%
C: 38%
D: 13%
Students’ Challenges

- Lack of Understanding: 26.9%
- Slow Processing Speed: 19.2%
- No Challenge: 19.2%
- No Response: 15.4%
- Shortage of Devices: 11.5%
- Slow Internet Access: 3.8%
- Access to RPI after class: 3.8%
Implementation Challenges

1. Incompatibilities of some accessories
2. Lack of a dedicated Lab for RPi project
3. Missing Pi casing units and heat sinks
Partial Solution
Video documentary
Overall Results

The team is of the opinion that the project was a success
Recommendations

- The project be tried in other courses
- Students be encouraged to apply in projects
- Course contents for primary schools be developed
Thank You

Q & A