Introducing R as First Programming

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Simple Coding for School Students

— Teaching C++/Java/Python

— Propose to teach 'R'

R for All

— R is free

— Open source

R for All [contd.]

—Free functions from open source, for different levels

—Free online books

R is Interactive

—Can write minimum code

—Other languages are not interactive

R is base 1

—Base zero is very confusing for beginners

—QBASIC is Base 1 as well

Data Type

—Simple data types

—Fewer data types

Simple Syntax

—R is not syntax heavy like most other programming languages

Simple Examples- To the power off

C++   **R**

—Pow(4.0, 2.0)   —4 ^ 2

Advantages of R vs C++

— Free and open source

— No need to be a programmer- Why?

— Can use functions from open source

Advantages of R vs C++ [contd.]

— Use R for research work in the future if required.

Teaching techniques- Middle school

—   **Learn Math using R in teams**

—   **Learn Arithmetic using R**

Teaching techniques- Middle school

— Learn small programs using R
ex.

✓Sum of n items

✓ Average of n items

Teaching techniques- High school

— Math concepts <= games using R

Future Plan

—Work on a grant to teach at a rural school in India.