

**CODE
FOR
CHANGE**

SCHOOL



CODEJIKA.COM

OVERVIEW

A vibrant, **student-run**,
after-school **coding program**.



CodeJIKA has 3 Pillars:

1. Eco-system of student-run **coding clubs**.
2. An **online platform** to learn coding online for FREE.
3. A **media campaign** to advocate coding in every secondary school.

Code for Change is partnering with civil society, government, schools & business to drive of the CodeJIKA Campaign.

Founded as a NPO, it has trained over 8000 youth in 15 in-house IT Training Centers in 5 provinces since 2009 and has been on the forefront of coding in SA schools since 2013.

Testimonials: What schools say



We have witnessed so many changes and improvement in CAT,... Thanks for Code for Change for playing such a big role." Mrs. Mamosebo - Principal, Ivory Park Secondary

"We don't understand why **the children are running to the PC lab** when classes end." Noah - Deputy Principal - Itirele Zenzele, Diepsloot



"Coding is a skill,... it's something not everybody can do and should be started at a young age." - Ms. Makhubedu - Principal, Diepsloot 3

"Your Jika **learners have started teaching** the Web Dev [HTML] elements of the CAT syllabus to all learners in the class." - Westridge Secondary

PARTNERS & AWARDS:



basic education
Department:
Basic Education
REPUBLIC OF SOUTH AFRICA



science
& technology
Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

How coding clubs benefit the school:

1. SCHOOL BENEFITS:

- **Join a Network** of forward-thinking Schools teaching code.
- Students take part in **awards and win prizes.**
- Excitement and school **innovation increases.**

2. LEARNER BENEFITS:

- **Learners take responsibility** for the club and lab.
- **Career Opportunities** post graduation.
- Girls coding and **pursuing STEM.**
- Rocketing coding **Superstars.**

3. ACADEMIC BENEFITS:

- **Pass rates increase** on CAT.
- Enrollment rates increase on CAT.
- Dropout rates decrease on CAT.
- **ICT comprehension** and sophistication increases.
- School's confidence to **offer the CAT elective** increases.

Year 1: How far do you want to go?



What Option is best for my school?



OPTION 1: "The 1-Hour Website" Event.

- A. Fun event, participants learn to code a simple landing page.
- B. No software, no internet, no experienced trainers are required.
- C. Duration: 2 hours and can be done in either 1 or 2 sessions.
- D. Managed by a student, school teacher or Club Mentor.

Required: Access to lab.

OPTION 2: CodeJIKa Coding Club



- A. Learners meet weekly to
 - 1. Follow the Coding Plan,
 - 2. Part-take in Competitions (online & offline),
 - 3. Improve their coding skills by creating awesome websites.

Required: Access to lab. Recommended 4 hours per week.

How clubs work?

1. LEARN THE BASICS:



Complete 2-3 Projects:

PROJECT 1: HTML COURSE
PROJECT 2: CSS COURSE

3. TAKE PART IN CHALLENGES:



EXAMPLE CHALLENGE:

MAKE LOCAL BUSINESS WEBSITE
- OR - SCHOOL WEBSITE



CATEGORY:

ONLINE ENTREPRENEUR

2. FORM CLUB:



1. BUILD YOUR TEAM

Minimum 5 members.



2. SIGN MOU

*We provide the template.
You just fill it in.*



3. Get your projects...

& start coding your websites.

How to Start a Club?

A club is usually formed directly by students. [See *Club: Start Page* on codejika.com .]

You can encourage this by:

1. Run the "1 Hour Website" event
2. Provide access to the lab.
3. Add the CodeJIKA Curriculum Folder to the desktops of each PC. (Very simple, no installations.)

Other ways to **start CodeJIKA in your school:**

- Put up posters [Print from here: codejika.com/resources]
- Start Coding Training [Curriculum is available here.]
- Get support from your area coordinator. [List here: Codejika.com/support]
- *How to start an event: Here: codejika.com/1hour*
- *Advertise the club: Here: codejika.com/resources*



WHY CODING & ABOUT US



What is Coding?

1. CODING, IS TELLING A COMPUTER
WHAT YOU WANT IT TO DO,
WHICH INVOLVES TYPING IN STEP-BY-
STEP COMMANDS
FOR THE COMPUTER TO FOLLOW.

2. ALMOST ANYTHING
POWERED BY ELECTRICITY
USES CODE.

3. COMPUTERS CAN UNDERSTAND
DIFFERENT LANGUAGES TOO,..
(LIKE PYTHON, C, C++, JAVASCRIPT, RUBY AND PHP,
AMONG OTHERS)

NORMALLY LOOKS
like this:

```
print 'Hello, world!'
```

```
1  function asdf(a){
2  }
3
4  var html = `
5      <div style="width: 100%"
6          <p>foo bar</p>
7      </div>
8  `;
9
10 function blah(){
11
12 }
```

B bloom.bg/1GzwRDU

 <https://youtu.be/cKhVupvyhKk>

<https://dailytekk.com/what-is-coding-15-facts-for-beginners/>

Why Coding in Schools?

1. A LANGUAGE,
& ESSENTIAL SKILL
BEST TAUGHT YOUNG.

2.
EVERY INDUSTRY
NEEDS CODE

3. INCREASING
NATIONAL
COMPETITIVENESS

"WE NEED TO FUTURE-SAFE OUR WORKFORCE."

PRAVIN GORDHAN - NOV 2016 CNBC/JSE



BANKING:

J.P.Morgan

Re-skilling 90,000 Employees
with IT Skills

AUTOMOTIVE:

TESLA

A Technology Company

HAND-MADE RUSKS:

Nibbly bits

Using Raspberry Pi simply coded to
monitor oven temperature, timing &
batch management for ISO compliance.

Why Us?



1

15 IT TRAINING CENTERS SINCE 2009
5 PROVINCES +1 IN MOZAMBIQUE

2

ENDORSED BY GOVERNMENT AND
FUNDERS THROUGHOUT THE COUNTRY

3

+5 YEARS - EXPERTS IN CODING & WEB
TRAINING IN SCHOOLS.

OUR BACKGROUND: FOUNDED 2009



SINGULAR FOCUS: ICT TRAINING FOR YOUTH
THROUGH INNOVATIVE EDUCATIONAL SOLUTIONS

PARTNERS:



and many more...

Be a Hero

Do you like working on your phone?

Why not Switch



From being a user...

*INSTEAD OF JUST POSTING ONLINE,
BEGIN CREATING.*



To being a creator!

*BUILDING SOLUTIONS FOR YOUR FAMILY
FRIENDS & OTHER BUSINESSES..*



A HERO - Using Code!

START NOW

ADDITIONAL INFO:

Corporate Site: www.code4change.co.za

CodeJIKa Site: www.codejika.com

Our Team Video: <https://youtu.be/da82NibzsHo>

Yearend/ Coding Awards: <https://youtu.be/LCvuh-chXnA>

JUST KIDDING. WE'D LOVE TO CHAT.

Our Secret Sauce

Short-Courses / Tight Deadlines

Two 3-week, fun, high-intensity interventions



Super Clear Obvious Outcomes

From Day One of our Intro RoadShow Students know that they will be building websites in 6 weeks.

Competition

Competition between Students, between Trainers & between Interns increases dynamics & motivation.

Training Style

A series of Intensive, practical projects.

Projects 1 - 3: IGNITION

Students Learn:

How to make a webpage in HTML

Add pictures, tables & a menu

How to use CodeCademy

How to add snippets of JavaScript Code

How to setup & add posts to a Wordpress Blog

First Steps: 3 Weeks



Projects 4 - 6: COMBUSTION

Students Learn:

Understand 10 basic concepts of JavaScript
HTML & CSS webpage incl. 5 snippets of
modified JS.

Edit a large and complex webpage.

3 page WordPress Blog

Final Project:

Make WP website for local business,
school/assoc.

The Basics: 3 Weeks



Club Challenges: CREATION

Monthly Events:

A student-run coding club is fostered and stimulated through:

- Inter-School Competitions
- Intra School Competitions
- Practical Workshops - Make a Whatsapp Clone -
- Meet-up - School Coding Club Management Planning Meeting

Talent Emerges: 18 - 24 Months



FAQ:

PILLAR 1: IN - SCHOOL
& SUSTAINABILITY



What's the Goal of CodeJIKA?



Support a vibrant eco-system of student-run coding clubs which compete and build digital skills.



Code for Change:

Ideology: "Youth have all the idealism, enthusiasm, energy and intellect needed to transform society today", they just need the tools and someone to say "I believe in you." That's our job - Join us!



Long-term Goal:

Small businesses lack skills and efficiency to create scale - This is our mission:

Build a large pool of ethical (digital) developers who can empower SMEs 5 - 10 years from now.

Sustainability – The long tail:

Sustainability is based on a trifecta of engagement elements which are fundamental to the program structures.

Student-level

The primary goal of the program is an energetic **eco-system of student-run coding clubs** which compete, innovate, inspire and teach others.

School-level

Providing an improved appreciation of ICT careers and technology applications has proven both **improved sign-up and pass rates for CAT** learners.

District-level

Working with district and school management to encourage schools to apply and successfully **offer the CAT & IT electives.**

Curriculum & Policy Level:

Code for Change engages with National DBE; seeks to be a part of the consortium needed to transform the ICT in education predicament and provides; hands-on feedback, statistics, input and encouragement in the creation and improvement of **curriculum and ICT Edu policy.**

How do you connect with schools?

School Identification:

- DBE District or Provincial recommendations
- School Referrals
- School Invites
- Direct Contact

School Selection Criteria:

- Attitude of School Management Team
 - Willingness to learn and adopt tech
- Geo-location & School batching
 - Min: 3-5 schools within district is preferred.
- Partner Preference & Access

Minimum Requirements:

- Functional PC Lab.
 - OR-- Funding for Lab Install
- Access to lab and organized schedule.

Preferred:

- Teaching C.A.T. or willing to apply for offering C.A.T. as elective.

How students connect with careers?

Real-world skills and vision casting allow students to imagine a future in ICT and develop confidence.

1. Skills

- Encourage learners to take CAT & IT
- Teach them to code.

2. Vision

- Vision, ideas and dreams about where ICT and Coding skills can take a career.
- Work days in companies - What they do and how they operate.

3. Linkages & Info

- List: Scholarship programs, training opportunities, career days and degree options at universities and colleges.

4. Up-stream Partnerships

- Referring gifted learners into further studies and opportunities in civil society, academia or the private sector.



CODE
FOR
CHANGE

The Hour of Code
is here

Coding Awareness campaigns run by Code for Change.