Preamble

DigiLocal provide support for community based out-of-school technology clubs.

We believe that learning should be fun, and goal-orientated. To this end we do not 'teach' specific components of coding or problem solving. Rather we set challenges, such as building a computer game, and the young person learns topics by doing them.

When young people have completed all our prepared project guides, or when they feel confident, they are encouraged to develop their own project challenges.

Clubs are delivered by volunteer mentors who are there to support young people. They are facilitators for the progression of young people through the projects and beyond.

While there is a general progression, from simple to complex, there is not a fixed curriculum to follow nor a prescribed sequence of activities.

Learning is self-directed with the young person setting the pace and pathway according to their ability and interest. We do not undertake formal initial assessment, the assumption is that everyone begins with the starter projects. More able / experienced young people will complete these more quickly and progress to more complex challenges.

There are various technologies that young people can use through DigiLocal, including Scratch and Python. There is no assumption that one is superior / more advanced than any other.

Young people may move between technologies as they feel appropriate in discussion with the mentors. Young people may also move between prepared guides, and their own ideas. Developing an original idea using simple concepts is a great way to embed knowledge before moving to more complex concepts.

Core concepts

DigiLocal is not teaching young people to pass a specific exam, or to be 'industry ready' software engineers in a particular language.

DigiLocal seeks to develop the core concepts of problem solving and resilience. These are developed throughout all our projects and at all levels.

Resilience

'Ways of thinking and acting that we need … if we want to make things better…'[1]

The framework on Academic Resilience (developed in partnership by Youth Minds, BoingBoing, University of Brighton, and Lisa Williams Consulting) identifies 4 'Nobel Truths' for resilience that are listed below with indicative examples of how DigiLocal clubs support these.

- **Accepting** - errors will occur in code, even if you copy it from a guide; resilience is accepting this and employing problem solving skills to correct them, rather than just giving up.
- **Conserving** - every completed project is a success and should be recognised as such (without over doing things). Similarly, reaching milestones like completing the introduction projects should be recognised and conserved, through the awarding of a White LINKS usb wristband that can be worn with pride.
- **Commitment** - Not every project can be completed in one session. Coming back to finish a project over 2, 3, or more weeks demonstrates commitment and resilience. In a similar fashion, DigiLocal makes a commitment to sustain clubs we launch over the long term, not just an 8 week school term.
- **Enlisting** - Some will need more support, some less. Some will go further and undertake more complex challenges than others. Some will be able to peer-mentor. DigiLocal clubs should be flexible to encompass a wide range of needs and to enlist others as needed (including external sites such as stackoverflow) to support young people.

As young people progress through projects, they will encounter obstacles that will test their resilience at every stage. The structure of the projecs and mentor support is there to help them develop those 'ways of thinking and acting' to make things better (or at least make the code work).

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[1] (*Helping Children with Complex Needs Bounce Back: Resilient Therapy for Parents and Professionals*, Aumann & Hart, 2009, p. 11)

Problem solving

In the DigiLocal context, problem solving is best described as an iterative process that includes a number of key skills, including; analysis, research, communication, creativity, team working, and decision making,

An example conversation of how this plays out in practice is below.

Problem definition: 'Describe what actually happened'; analysis, communication

Solution definition: 'Explain what should have happened'; analysis, creativity, communication

Solution development: 'What does the guide suggest / where have you done something similar (perhaps suggesting a project guide if working on original idea / this other young person just solved the same / similar problem, can you describe how you did that'; research, creativity, decision making, team working

Solution testing: 'Try it out / did that work as expected'; analysis, decision making

As challenges become more complex, the guides offer less direct instruction and more suggestions of possible solutions. They also refer back to earlier projects to reinforce earlier concepts.

LINKS Awards

We use the LINKS award system to reward achievement and mark progress. The first three award levels are described in terms of completing the prepared project guides. Levels two and three also require attendance at a show'n'tell event to showcase and celebrate a young person's achievements.

Subsequent levels are at the discretion of mentors and dependant on original work by the young person.
https://digilocal.org.uk/links/

This scheme is under constant review and may be updated with more colours / levels as required to provide appropriate gradation for recognising achievement.

White	Create and finish our basic projects. These could be in Scratch or Python.
	• Attend 8 DigiLocal sessions; • Get to know the names of your fellow DigiLocal young people and 2 mentors
Yellow	Create and finish our medium projects. These could be in Scratch or Python.
	• Attend DigiLocal regularly; • Hold a White band; • Present your projects at a showcase event / to your club;
Blue	Create and finish our difficult projects. These could be in Scratch or Python.
	• Attend DigiLocal regularly; • Hold a Yellow band; • Present your projects at a showcase event / to your club

Green	Create and finish your own project (in Scratch or python);
	- Identify a purpose / objective; - Use the BAFTA resources to help structure the project; - Develop the game / programme; - Test with fellow DigiLocal young people;
	- Attend DigiLocal regularly; - Hold a Blue band; - Support the DigiLocal Ambassadors to welcome new attendees; - Present your projects at a showcase event/ to your club
Orange	Work in a team to create and finish your own project (in Scratch or python);
	- Identify a purpose / objective; - Use the BAFTA resources to help structure the project; - Develop the game / programme; - Test with fellow DigiLocal young people;
	- Attend DigiLocal regularly; - Hold a Green band; - Support the DigiLocal Ambassadors to welcome new attendees; - Present your projects at a showcase event/ to your club

Red	Produce a Project Guide for other DigiLocal clubs e.g.;
	- Use one of your projects for your Green or Orange award (or a new project); - Document the process of producing a game or programme; - Show how to build the Minimum Viable Project (simplest example of your game idea); - Add in complexity; additional features, levels, etc; - Test with fellow DigiLocal young people
	- Attend DigiLocal regularly; - Hold an Orange band; - Help mentor new DigiLocal attendees; - Present your Project Guide at a showcase event
Black	Work in a team to produce a Project Guide for other DigiLocal clubs e.g.;
	- Use one of your projects for your Green or Orange award (or a new project); - Document the process of producing a game or programme; - Show how to build the Minimum Viable Project (simplest example of your game idea); - Add in complexity; additional features, levels, etc; - Test with fellow DigiLocal young people
	- Attend DigiLocal regularly; - Hold a Red band; - Help mentor new DigiLocal attendees; - Present your Project Guide at a showcase event