



Knowledge hub
-
Collection of best practices

Summary of the best practice

1. Title of the best practice (e.g. name of policy, programme, project, etc.) *

Apps for Good Portugal

2. Country or countries where the practice is implemented *

Portugal, UK, Angola, Timor

3. Please select the **most relevant** Action Track(s) the best practice applies to *

- Action Track 1. Inclusive, equitable, safe, and healthy schools
- Action Track 2. Learning and skills for life, work, and sustainable development
- Action Track 3. Teachers, teaching and the teaching profession
- Action Track 4. Digital learning and transformation
- Action Track 5. Financing of education

4. Implementation lead/partner organization(s) *

CDI Portugal

5. Key words (5-15 words): Please add key descriptive words around aims, modalities, target groups etc. *

Innovative project methodology to change the way teachers teach on classroom. Target: students and teachers

6. What makes it a best practice? *

Apps for Good has been implemented in Portugal since 2014 and it aims to transform education system as traditional methods are no longer working on student's engagement. Through an online platform, students and teachers have access to creative and inclusive digital courses using technology to promote new ways of working on classroom, based on 4 pillars: 1) Tech + problem solving + entrepreneurship We teach how technology can be applied to solve a problem, along with improving young people's confidence and skills in problem solving, collaboration and communication. We focus on relevant, up-to-date technologies and on the 17 Sustainable Development Goals of United State. 2) Student- driven learning for good Students work in teams to solve a problem they are passionate about. We teach young people to be active and aware citizens contributing to making the world a better place. 3) Transformation of teaching practice & pedagogy We work with schools and support teachers. This deepens our impact, delivers scale and helps us reach a more diverse student group. We use an innovative pedagogy partnering with teachers to ensure this works in the classroom. We focus on teachers training and direct support to build their confidence on applying new ways of teaching. 4) Real world context They are developing real apps linked with their reality draw on real world experts. Besides that, they are using real world methods (exercises/ techniques such as design thinking) that can be very useful for their professional life. Develop tech skills and soft skills. Apps for Good collaborate with industry, corporate partners, educators and the wider sector (Government, teachers associations, corporates along others) to create a relevant, rewarding and meaningful learning experience for students that fits on the lives of teachers. We believe we can achieve more by working together and by promoting a ecosystems environment where everyone can contribute to young people learning. Besides that, Apps for Good has a straight relationship/working closely with Portuguese Ministry to ensure our alignment with educational policies in order to help us drive our programme forward. Apps for Good programme can be applied on different countries and contexts with low resources needed with evidence-based results on educators (collaborative work, technical skills, adapting new teaching methods) and on students (coding, resilience, teamwork, communication, problem solving). More than 40% of the students are girls that are willing to use technology with a purpose. Since 2014, Apps for Good Portugal reached 590 schools, 1550 teachers and 23.525 students. More than 1860 digital solutions were created by students. We are delighted to refer Apps for Good won the UNESCO Prize – Hamdan bin Rashid Al-Maktoum for Good Practice and Exemplary Performance in Improving Teacher Efficiency (2020) and was considered one of the inspiring practices for tomorrow's digital world by European Union.

Description of the best practice

7. Introduction (350-400 words)

This section should ideally provide the context of, and justification for, the practice and address the following issues:

- i) Which population was affected?
- ii) What was the problem that needed to be addressed?
- iii) Which approach was taken and what objectives were achieved? *

Problem: Apps for Good promotes technology education as a means of empowering young people from all backgrounds to develop their confidence and skills needed to thrive in a tech driven future. Many young people are demotivated by the usual teaching methods, which leave them poorly prepared for the real world of work and social relations. Yet traditional schooling lags well behind, missing this opportunity to engage, especially those students most disaffected with standard education.

Therefore, more than ever it is apparent that young people are facing a volatile and uncertain future. They need to become drivers of change in their community and be equipped with the skillset and the mindset to thrive in the fourth industrial revolution. Education should prepare young people for life, work and citizenship.

Approach: Apps for Good approach complements traditional education methods. Apps for Good is an innovative educational movement grounded in the values of equity, inclusion, gender equality, solidarity and youth engagement. Teachers are supported to put young people in the driving seat, to develop their skills and confidence to dare to fail forward, to learn by doing and making, and to take collective responsibility for all stakeholders, one which supports teachers to take the risks associated with changing their approach, students to believe in themselves and encourage their peers, and partners to contribute to the promotion of social goals.

Apps for Good mission is to create a generation of problem-solvers and digital makers through training educators to deliver our courses and teaching young people vital digital, entrepreneurial and enterprise skills for the 21st century. This program creates a connection between digital learning, company context and entrepreneur vision, including all the phases of product development, from idea generation, business model, marketing, design to the final pitch (project methodology).

Since 2014, Apps for Good Portugal reached 590 schools (mainly state schools), 1550 teachers (50% IT teachers and 50% non-IT teachers) and 23.525 students (from 10 – 18 years old). More than 1860 digital solutions were created by students.

8. Implementation (350-450 words)

Please describe the implementation modalities or processes, where possible in relation to:

- i) What are the main activities carried out?
- ii) When and where the activities were carried out (including the start date and whether it is ongoing)?
- iii) Who were the key implementation actors and collaborators? (civil society organizations, private sector, foundations, coalitions, networks etc.)?
- iv) What were the resources needed (budget and sources) for the implementation? *

The Apps for Good is available to Primary and Secondary schools, FE colleges and informal learning centres and each edition lasts one academic year.

Across one edition the main activities carried out are:

- Invitation of schools (recruitment) and Online Welcome Session
- Development of the Apps based on 17 SDG's (moving through our five steps methodology framework and courses).
- Roadshows - Direct contact with teachers and students (support and interviews for impact evaluation)
- Teachers support by phone, in person and online training
- Expert Sessions
- National competition: Regionals and Final events
- Former students (fellows) and teachers' (Ninja) community
- Evaluation (Impact Report and infographic)

The courses offered by the programme can be delivered by any level of teacher, regardless of experience or prior subject knowledge, and students from 10-18 years old. Our teachers will gain access to our platform where they will find our course content including lesson primers and plans, access to our suggested tools and software, and from there they can request an expert (our support community). The flexible course framework allows Apps for Good to be delivered during curriculum time, during enrichment time or as a club. Currently, Apps for Good offers six courses: from 10 to 30 hours; in Portuguese or English; with different technologies -mobile app, Internet of Things and Machine Learning - and Climate action & Wellbeing course.

We have an operational model that includes training teachers (on innovative learning strategies and our project methodology) and other educators to work locally with young people, but also matching them with professional designers, developers and entrepreneurs who volunteer their time through an Expert Community to advice young people on their app ideas. Our course framework covers 5 modules where students work together as teams to find real-life issues they want to tackle and how best to solve them with mobile apps along the full software product development lifecycle: (1) crash course, (2) idea generation and screening, (3) scoping, 2 (4) product development, (5) pitch and beyond. In the end, teams are invited to pitch their solutions on our competition.

We collaborate with schools, corporate partners and Government and the main implementation actors are students and teachers.

The implementation requires teachers and students motivated to learn and equipment's like smartphones or computers (1 per team), access to internet and Apps for Good Platform. The platform is ready to have multi language and built in a low code platform to turn easier new developments.

For operational and management costs it has a average budget of 400.000 euros per year.

Apps for Good can is prepared to be scaled up to other countries.

9. Results – outputs and outcomes (250-350 words)

To the extent possible, please reply to the questions below:

- i) How was the practice identified as transformative? (e.g., impact on policies, impact on management processes, impact on delivery arrangements or education monitoring, impact on teachers, learners and beneficiary communities etc.);
- ii) What were the concrete results achieved with regard to outputs and outcomes?
- iii) Has an assessment of the practice been carried out? If yes, what were the results? *

Apps for Good has had a very significant (transformative) impact on teachers and students, turning schools “more 21st century”: helping young people thrive in a tech driven future; working with teachers to create a new kind of learning: one that’s rooted in the real world and driven by students; where students learn to turn bright ideas into real technology products.

We also promote student’s awareness and citizenship as they are creating digital solutions to tackle social problems which brings benefits to the community where they are based.

The Apps for Good impact evaluation is carried out by Lisbon University and evaluation is based on interviews and initial and final questionnaires.

Outcomes:

Teachers trained, engaged and confident to deliver new teaching methodologies

Quality & inclusive courses valued by schools

Climate change taught in a new way as part of the curriculum

Young people from disadvantaged backgrounds engaged

Young people interacting with expert mentors & producing sustainable solutions

Increased knowledge & awareness of the world and how local action and tech can help

Increased technical and soft skills

Outputs:

Students Skills:

76% of students report improvements in work team;

68% of students report improvements in problems resolution and communication competencies;

58% of students report progresses in tech knowledge (programming and coding);

83% of students report an increasing in general confidence;

72% report improvement in their resilience (having the capacity to try again when something goes wrong).

Teachers Skills:

87 % of teachers reveal improvement in tech knowledge (programming);

79 % reveal upgrades in the development of new educational methods;

70 % indicates have learnt new and relevant knowledge;

68 % indicates an increasing in the level of confidence of teaching.

In terms of long impact, Apps for Good increased responsibility in the learning process, increased capacity to solve problems in a critical and creative way, increased ability to face the future job market and promotes student and increase school success (students). On teachers, increase job satisfaction, professional engagement and professional recognition.

more than 27.000 students / more than 2.000 teachers certified by the Minister of Education / more than 220 schools per year

10. Lessons learnt (300 words)

To the extent possible, please reply to the following questions:

- i) What were the key triggers for transformation?
- ii) What worked really well – what facilitated this?
- iii) What did not work – why did it not work? *

There are several ingredients that have contributed to the transformation in education within the Apps for Good programme: the support to teachers, the networking with different stakeholders, the visibility that the projects contribute to schools, the complementarity of the project with the school curriculum and with the objectives and work of teachers and the delivery of a work methodology based on projects that involve technology and the areas of interest/passion of young people (main factor of motivation and involvement).

From the evidence of 8 years of field experience, we can see that the transformation of education is very much centred on teachers (among other aspects) and the support they are given throughout this journey of changing methodologies. The training of teachers, the pedagogical resources offered by the programme, the support and motivation calls and the school visits are the facilitating factors most mentioned by teachers. Another success factor promoted by the programme is the multidisciplinary work among teachers, who thus contribute to the learning of different knowledge and skills. The competition that complements the programme's activities is essential to validate the experience of the young people and the hard work they develop throughout the school year. Through this experience, they can contact other schools, partners and companies that are willing to share their knowledge (ecosystem).

The support of the partners, especially the Directorate-General for Education, has been fundamental in taking the programme to another level and contributing effectively to this journey of transformation.

One of the factors that does not go so well is that teachers work alone without the support of the directorates and colleagues. It leads to demotivation and an overload of work, as the project methodology requires a more personalised work with the students.

11. Conclusions (250 words)

Please describe why may this intervention be considered a “best practice”.
What recommendations can be made for those intending to adopt the documented “best practice” or how can it help people working on the same issue(s)? *

The Apps for Good programme has been recognised over the years for its innovative approach to teacher development and work (UNESCO Prize – Hamdan bin Rashid Al-Maktoum for Good Practice and Exemplary Performance in Improving Teacher Efficiency) as well as inspiring practices for tomorrow’s digital world (by European Commission).

Its operational model geared towards supporting teachers and the work being done on the ground has been fundamental to the programme’s success. We train teachers to gain the confidence to implement and integrate in their practices active and innovative methodologies that engage and involve young people in their learning process. We promote the participation of at least two teachers per school as a way to collaborate and share experiences and knowledge, contributing to their motivation. Furthermore, the project methodology can be based on the school curriculum and complement other projects already applied in schools that make sense to create synergies.

We value and believe that technology should be a catalyst for equal opportunities and gender equality. We bet on the empowerment of young people and the aspiration of careers so that they shine in a future that is seen as uncertain and vulnerable. We believe and bet on the evolution of the educational model with the introduction of innovative learning strategies that meet the talents and skills of young people.

12. Further reading

Please provide a list and URLs of key reference documents for additional information on the “best practice” for those who may be interested in knowing how the results benefited the beneficiary group/s. *

<https://www.cdi.org.pt/en/apps-for-good/>

<https://cdi.org.pt/apps-for-good/#impact>