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.) *

    IT Girls Initiative

2. Country or countries where the practice is implemented *

    Bosnia and Herzegovina

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) *

   UNICEF, UNDP, UN Women

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

   The program aims to fill the digital gender gap, promote equal opportunities for girls and boys in education and access to technology, and foster gender equality in the marketplace, workplace, and community.
   The IT Girls Initiative is built around three pillars, representing separate yet complementary sets of interventions, leading to the achievement of the objectives:
   • High-quality digital skills provided to girls and women
   • Vocational training, employment and workplace standards in the area of human resource management
   • Advocacy and confidence-building for women and girls

   The target groups are young girls aged 13-18, students and young professionals in the field of ICT, as well as successful women with experience in this industry.

6. What makes it a best practice? *

   IT Girls initiative offers a wide range of opportunities for girls and women throughout their education and career. It is a holistic, gender transformative approach which supports girls through formal education in primary and secondary schools, providing learning opportunities and mentorship to girls during university studies, and working closely with the private sector to advocate for equal access to opportunities and promoting gender equality in the workplace, aiming at also supporting successful women in IT industry and giving them visibility. Through primary and secondary schools in IT Girls clubs, girls are covering a range of STEM subjects and using Internet of Things, where they learn programming, basics in electronics, robotics, using the knowledge from physics and other natural sciences. Additionally, it offers girls from primary, secondary schools, and universities a range of nonformal learning opportunities in digital skills, programming, entrepreneurship, and access to new technologies. Furthermore, this initative gives visibility to the successful women in IT and contects them with young girls to showcase that women are and can be successful in this industy. These women act as mentors to younger generations of girls interested in IT and programming. By closely working with the private sector IT Girls work on promoting gender equality and women's empowerment in the workplace, labour market and community.

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? *

The program aims to fill the digital gender gap, promote equal opportunities for girls and boys in education and access to technology, and foster gender equality in the marketplace, workplace, and community.

The IT Girls Initiative is built around three pillars, representing separate yet complementary sets of interventions, leading to the achievement of the objectives:

• High-quality digital skills provided to girls and women - through the formal education by creating the IT Girls Clubs as an extracurricular activity in primary and secondary schools across the country, training of school teachers to manage and teach in these clubs, creating training materials for girls and teachers, and providing electronic equipment to these schools. This activity tackles two main issues, one is the mismatch between the skills that students get through their education system compared to the needs of the IT industry which is fast growing and developing, and the second is the gender biases that exist in BiH society when it comes to different roles women and men should observe in their societies, and therefore career choices they should make. Therefore, in this way girls are empowered through the knowledge and skills to embark on the education and career pathways in IT and/or STEM areas. Current methods of teaching, assessment and evaluation in BiH schools do not sufficiently address the demands of contemporary society, with low competencies of teachers to teach informatics at a more advanced level. IT Girls provide teachers with training in programming, using the Internet of Things to provide girls with skills that will enable their easier transition from education to work.

• Vocational training, employment and workplace standards in the area of human resource management - through advancing gender-sensitive workplace standards and human resource management practices, advancing women and girls' digital and entrepreneurship skills for jobs of the future through non-formal learning, and mentorship opportunities. Under this activity, the initiative engages with companies aiming at improving workplace standards through the Women's Empowerment Principles (WEPs) which offer guidance to companies on how to promote gender equality and women's empowerment in the workplace, market and community. Additionally, opportunities for non-formal education are limited and not targeting girls specifically, which was further impacted on by the COVID-19 pandemic, which is addressed by the IT Girls initiative through organizing nonformal education workshops offering range of above mentioned skills.

• Advocacy and confidence-building for women and girls - In relation to personal choices and confidence boys are percieved as to having a wider knowledge of programming languages and are more confident in their own skills. IT Girls Initiative is tackling societal gender stereotypes, creating a network of women in ICT in BiH, and showcasing the work of successful women in ICT.

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?

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This programme was an initiative that sparked from a group of young people in 2018, which grew substantially with time. Following consultation with cantonal ministries of education, the Initiative established institutional partnerships with 10 schools in 2019 in which an extra-curricular activity IT Girls Clubs was established. Subsequentially, trainings were organized for teachers nominated by elementary schools, provided the electronic equipment to those schools, and produced a training manual for the use of these electronic sets and to transfer this knowledge to girls IT Girls Clubs, established as an extra-curricular activity which expanded to a total of 22 primary schools, and 26 secondary schools, reaching around 400 girls through formal education, and training around 100 teachers.

Manuals for teachers working in the IT Girls clubs were developed covering the programming and electronical part of the classes. Additionally the Initative developed Manual for teachers on Gender-sensitive teaching methods, which has become the integral part of the trainings for teachers, to ensure equal opportunities and fair access for girls and boys, as well as to eliminate stereotypical content in textbooks and gender-insensitive teaching methods.

Over the years, the IT Girls initiative has contributed to raising awareness of the importance of inclusion of girls and women in the ICT sector among more than 1,200 girls, and has also helped increase their self-confidence. Through trainings and nonformal learning opportunities girls were thought in advanced digital skills (VR, 3D modeling), programming, as well as entrepreneurship and business skills. The "Network of Women in ICT" was also established, which today has around 70 members. IT Girls provided mentoring and training for 112 girls and young women interested in ICT throughout BiH.

In response to the COVID-19 pandemic, IT Girls transferred its 'Become an IT Girl' training programme to online space; and organized 13 #ITGirlsGoOline webinars reaching around 35,000 girls and women through social media channels, and created video tutorials for teachers and girls so they can work and learn from home.

Ten private companies/organizations, including the Chamber of Commerce of the Federation of Bosnia and Herzegovina, established a three-year Action Plans to implement Women Empowerment Principles (WEPs), to improve workplace standards, following guidance that IT Girls developed in 2020. IT Girls organized two conferences for WEPs pilot companies in the second half of 2021 as well as training on gender equality, gender responsive practices in human resources management, marketing, health and safety, sexual harassment at work, as well as the role of private sector in preventing domestic violence and protecting victims. Training manuals and guidelines on these topics are designed and are applicable for further use. More than 50 private sector employees from these signatory companies participated in trainings.

Key partners of the initiative are the Swedish Government who is supporting it from the beginning, Ministries of Education in Bosnia and Herzegovina, schools, universities, private companies, and CSOs.

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? *

Over the years initiative expanded to a total of 22 primary schools, and 26 secondary schools, reaching around 400 girls through formal education, and training around 100 teachers.

The IT Girls initiative has contributed to raising awareness of the importance of inclusion of girls and women in the ICT sector among more than 1,200 girls, and has also helped increase their self-confidence. More than 610 girls and young women were given the opportunity to participate in trainings and nonformal learning opportunities in advanced digital skills (VR, 3D modeling), programming, as well as entrepreneurship and business skills.

The "Network of Women in ICT" was also established, which today has around 70 members. IT Girls provided mentoring and training for 112 girls and young women interested in ICT throughout BiH.

According to teachers and other stakeholders, IT Girls Clubs represent eye-opening experience for students and insight into wide possibilities and uses of high digital skills. Girls joined IT Girls Clubs because they wanted to learn programming, because they are interested in IT, and because they would like to work in IT related fields. In terms of immediate impact, although this cannot be attributed only to IT Girls Initiative, an increase in the number of girls participating in robotics clubs in their schools (where existing), and through direct feedback from girls participating in IT Girls activities, majority of them is thinking about pursuing their education in STEM areas, specifically IT.

Stakeholders from IT companies testify of full involvement of their relevant departments in WEPs assessment and action planning, together with IT Girls consultant, including legal, HR, and marketing departments. When it comes to implementation of action plans, some ways of integration of their objectives and activities into every-day business include integration of WEPs action plan into company's operational plan, but also appointment of coordinators for implementation of the action plan across company departments. For example, as a result of the action plan, one interviewed company changed its policy on parental leave by increasing coverage. The FBiH Chamber of Commerce also became a signatory of WEPs thanks to cooperation with IT Girls. Being an organization that gathers large membership of companies and represents their interests, the FBiH Chamber of Commerce is in the position to establish linkages with a number of businesses from different sectors, and also to communicate important messages widely thus setting standards for business entities, including standards of gender equality and women empowerment.

An exit survey was conducted among mentors and mentees following the mentorship programme in 2020. Findings of this survey suggest that mentors' and mentees' personal expectations from the mentoring programme were fulfilled, and 90% of mentees said that their expectations were exceptionally fulfilled. All pairs reported full satisfaction with the matching process, according to the survey results. Of all pairs, 85% of mentees and mentors are extremely satisfied with mentorship dynamics and all of them expressed satisfaction with provided materials and resources.

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? *

    The high relevance of the topic of girls and women in ICT has put the Initiative at the forefront and continued attracting support by different stakeholders. The huge labour market need for skilled employees in the IT sector, eased the collaboration with the private sector, with Ministries of education and schools, and keeps the relevance of this Initiative very high. The engagement of the private sector through the IT Girls, has proven that collaboration driven by social values and gender equality principles is also possible. Collaboration with the private companies is the key here, not just for the expertise that they can bring into the programme, and opportunities they can offer to girls, but because of the changes they can do within their companies and serve as an example to other industry sectors when it comes to gender equality in the labour marker and business practices.
    Working directly with the Ministries of education in BiH and schools, enabled establishing an extracurricular activity in schools which offers an alternative option for more advanced informatics classes, which are also more easily adaptable to the changes in the technology and industry, while still being offered through formal education system, working with school teachers, and incapacitating them to use those skills in their regular informatics and STEM classes. Capacity building of teachers is another crucial element for the success of the entire programme, and to ensure quality teaching in IT GIrls Clubs. Teachers are the key to both the aspect of the skills building of girls, but also for the elimination of the gender biasis in the classrooms and using gender-sensitive teaching methods.
    Nonformal education workshops offered access to these opportunities to a much larger number of girls, and covered topics that are not covered in schools and some not even in universities.

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 IT Girls initiative is a gender-transformative initiative that provides girls with opportunities to learn about IT related areas from primary school and follows them through secondary schools, university and eases their access to the labour market, by working with the IT business sector to promote gender equality and women's empowerment in the workplace. IT Girls Initiative works with the Ministries of education, and capacitates teachers to teach students on a more advanced level of digital skills, programming and electronics, not just in the IT Girls Clubs in schools but also in their regular classes. Girls show great interest for these activities, and they make an impact on their education and career choices.
    The initiative works closely with the private sector to bring the education tand the labour market needs closer together, and to ease the transition from the education to work for more girls and young women.
    Due to its holistic approach IT Girls Initative is a great candidate for the "best practice" for this Transforming education summit, and has a great potential for replication in other countries in the region and wider.

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. *

Gender Sensitive teaching methods for teachers:
https://www.unicef.org/bih/izvje%C5%A1taji/priru%C4%8Dnik-za-upoznavanje-nastavnica-i-nastavnika-sa-metodama-rodno-odgovornog-pou%C4%8Davanja
Gender Sensitive teaching methods for educators:
https://www.unicef.org/bih/izvje%C5%A1taji/priru%C4%8Dnik-za-edukatore-o-rodno-odgovornom-pou%C4%8Davanju
Teachers manuals for IT Girls Clubs: https://www.unicef.org/bih/izvje%C5%A1taji/arduino-za-sve
Women Empowerment Principles: https://www.weps.org/
Gender gap in STEM fields BiH: https://eca.unwomen.org/en/digital-library/publications/2021/8/gender-gap-in-the-stem-fields-and-proposed-intervention-programmes