The Digital Inclusion of Adolescents through Applied Informatics and Technologies Workshops

Mrs. Franciene Duarte Gomes, Ms. Anelise Neves de Barros, Mrs. Fabricia Gladys Fernandes da Silva

Background

The digital age causes new technologies to be introduced into people's daily lives.

With this, Information and Communication Technology (ICT) collaborate with the rapid access to information. Even digital citizenship corresponds to the conscious and appropriate use of ICT.

On the other hand, there are adolescents who present social vulnerabilities, have a low level of computer knowledge, generating the exclusion of this age group in this era.

Hypothesis

Extension actions provide digital inclusion and citizenship of adolescents in which they present social vulnerability, ensuring life changes. In this way, offering basic computer workshops to these adolescents can:

- assist with everyday tasks;
- better understand ICT;
- provoke knowledge to carry out their professional activities.

Results

The basic informatics workshops trained more than 100 adolescents in the year 2022 and many adolescents expressed satisfaction and interest in participating in new workshops. The following chart shows the evolution of a class that participated in modules 1 and 2:
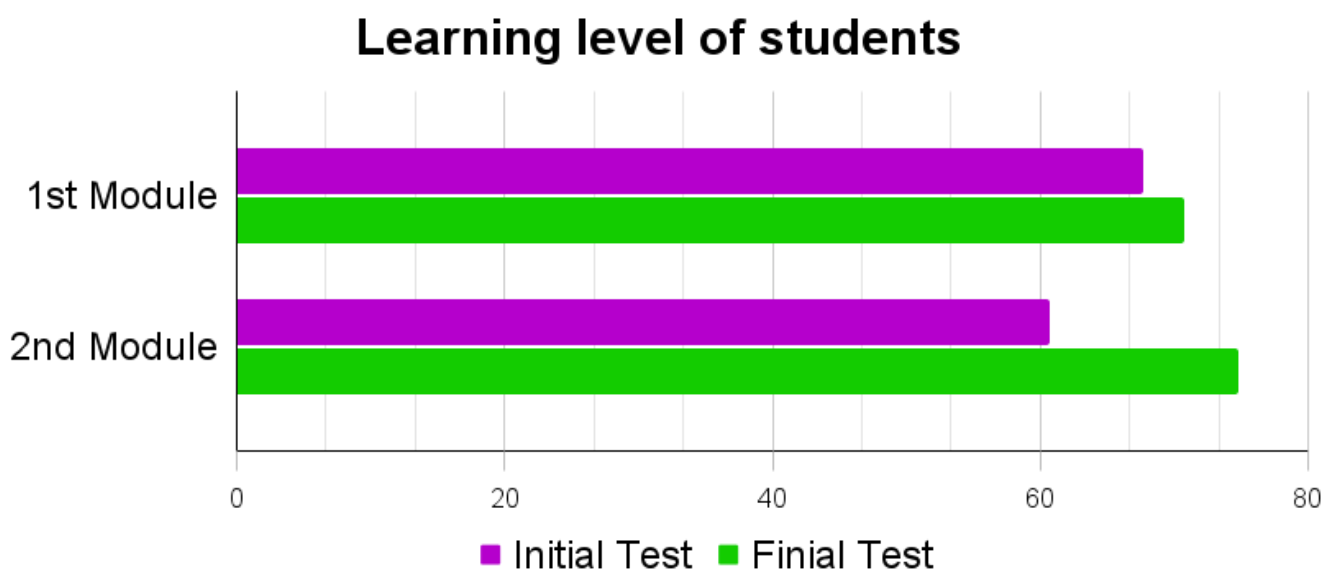

Figure 1: Learning level of students

In addition to the trained adolescents, this extension action provided an inclusive look and a satisfaction to the collaborators of contributing to the digital inclusion of these adolescents.

Future Work

The extension project aims in the future to broaden the scope of the basic computer course to include spreadsheet related topics such as:

- automation of repetitive tasks;
- data analysis to generate more advanced graphics
- protection of folders and worksheets;
- data import and export.

With the purpose of collaborating with digital inclusion and training for the labor market.

Research Question

- How have new digital technologies, including the Scratch platform, influenced adolescents' learning and participation in basic computer workshops?

- What is the impact of basic computer workshops on digital inclusion and digital citizenship of socially vulnerable adolescents?

Methodology

The activities began in 2020 with the elaboration of didactic material, production of video lessons, class notes and a manual, online, due to the coronavirus pandemic.

In 2022, the computer workshops were started in person with weekly meetings, being taught by instructors who contemplate the following contents: basic computer concepts, software, hardware, operating systems, internet, text editor, presentation editor, spreadsheet, introduction to artificial intelligence and use of Scratch software.
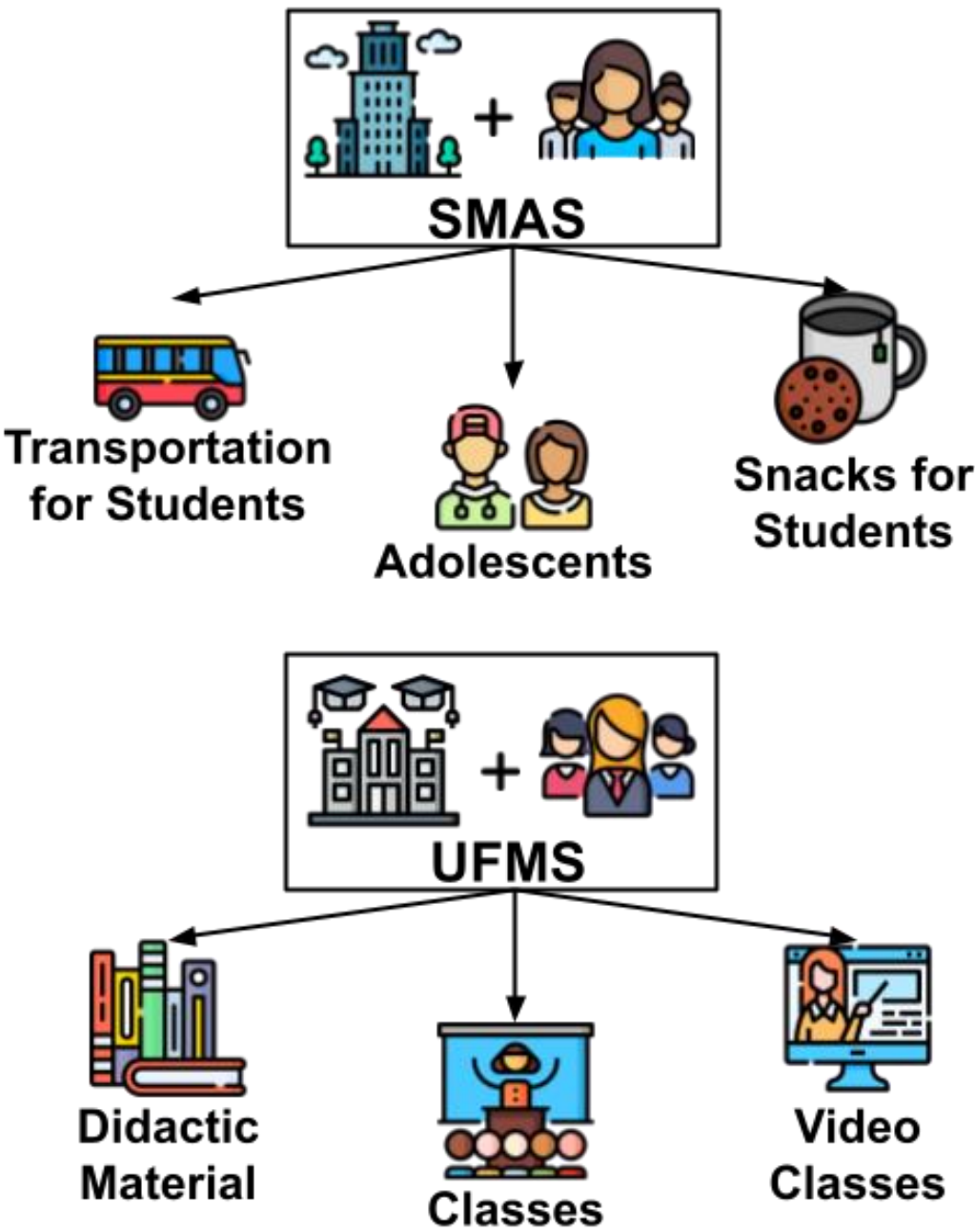

Figure 2: Example of methodology

Bibliography

Alhassan, M. D., & Adam, I. O. (2021). The effects of digital inclusion and ICT access on the quality of life: A global perspective. Technology in Society, 64, 101511.

Frau-Meigs, D., O'Neill, B., Soriani, A., & Tomé, V. (2017). Digital citizenship education: Volume 1: Overview and new perspectives.

SCRATCH. Available in: <https://scratch.mit.edu/>. Access in: July 20th, 2023.