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D SALAMANCA

DigiCraft in your School: Impact and Learning Assessment of Full Cycle of Implementation (Phase I & II)

Executive report



1 Analysis of DigiCraft's impact assessment process in educational establishments

1.1

Choice of schools

1.2

Research design
and development

The Impact and Learning Assessment is conducted in schools that have applied the DigiCraft programme in their classrooms over a period of 2 to 3 years.

This document is an **update** of the assessment conducted in the 2022-23 school year (PHASE I), including data collected in the 2023-24 school year in DigiCraft schools in different autonomous regions (PHASE II).

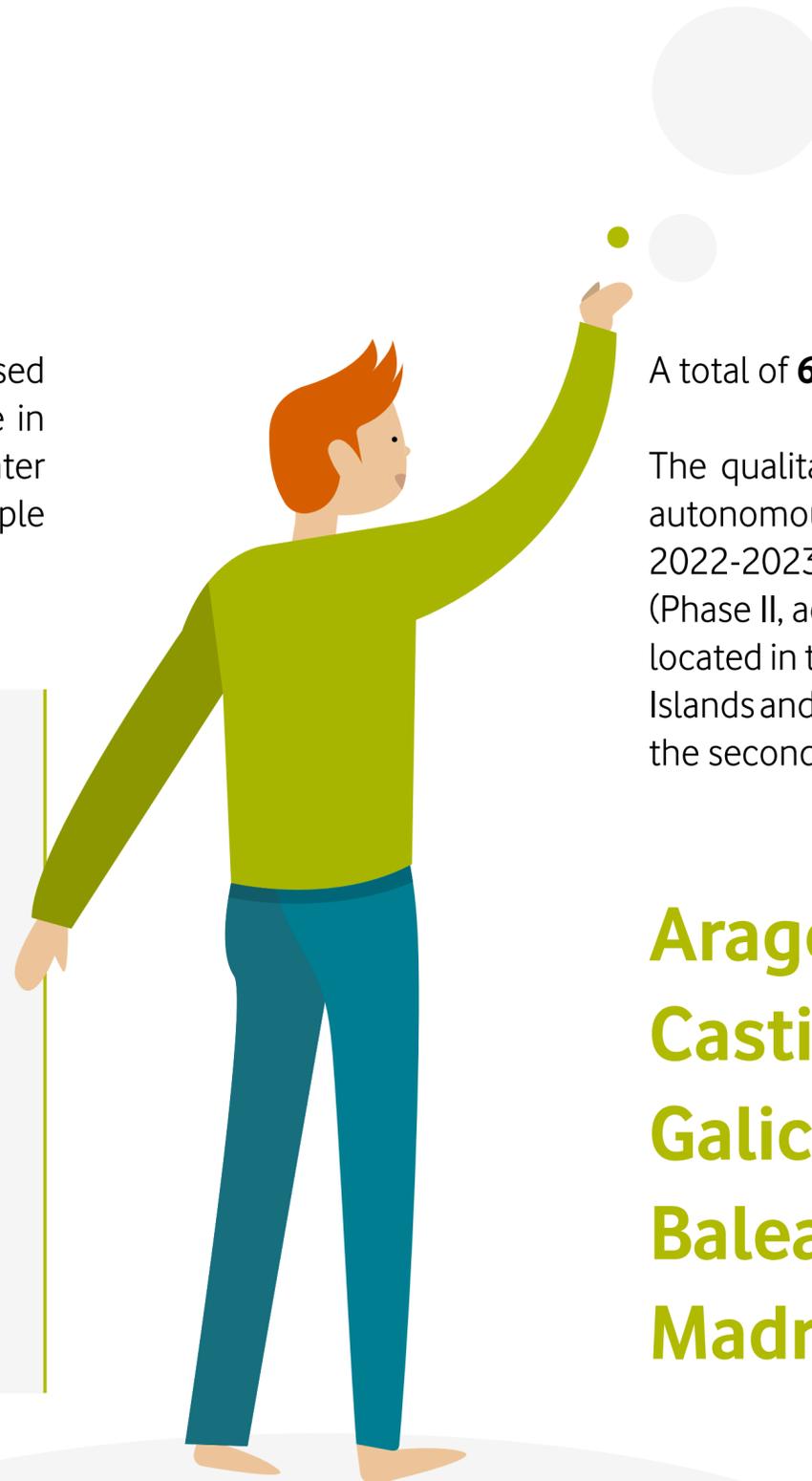


1.1.

Choice of schools.

Non-probabilistic, intentional sampling was used to select the assessed schools, ensuring that the participants had at least 2 years' experience in applying the programme. Specific criteria were also considered to cater for the diversity of the population studied, thus ensuring that the sample included a representation of all types of schools:

- **Type of school:** public/subsidised.
- **Population:** rural/urban.
- **Size:** small (1 line) /medium (2/3 lines) /large (4 or more lines).
- **Pupil status:** vulnerable/non-vulnerable.
- **Status of technology integration in the school:** first approximation/intermediate/advanced level.
- **Representation of the Autonomous Regions** involved in the programme.



A total of **64 schools** took part in the assessment:

The qualitative assessment was carried out in 20 schools, located in the autonomous regions of Andalusia, Galicia, Madrid (Phase I, academic year 2022-2023, 16 schools), Castile and Leon, Aragón and the Balearic Islands (Phase II, academic year 2023-2024, 4 schools). A total of 44 schools located in the autonomous regions of Aragón, Castille-León, Galicia, Balearic Islands and Madrid took part in the quantitative assessment carried out during the second phase.

Aragón
Castille-León
Galicia
Balearic Islands
Madrid



1.2.

Research design and development

In the **first phase**, a qualitative assessment research methodological design was chosen. In the second phase, a mixed methodological design was used, maintaining the qualitative assessment research and adding a quantitative approach.

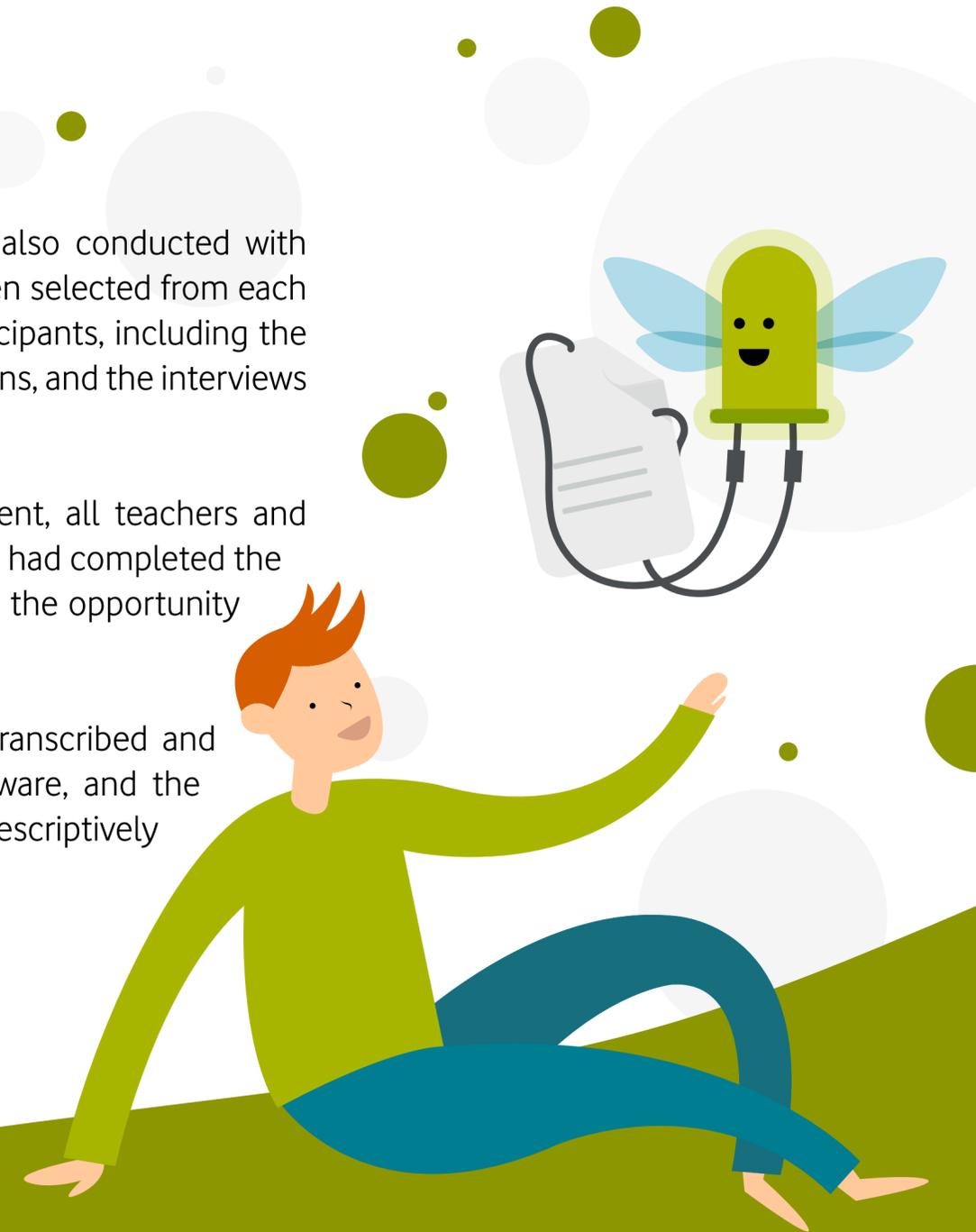
Between December 2022 and February 2023, the qualitative instruments and protocols necessary for data collection in the first phase were developed. Two semi-structured interviews, one for adults (teachers and management team) and one for children, were designed to answer the research questions and the corresponding protocols were established to guide the fieldwork in the schools. For the **second phase**, in April 2024, these instruments and protocols were revised and validated, and a questionnaire was designed to collect quantitative information.

The fieldwork was carried out in two phases: the first between April and May 2023, and the second between April and June 2024. The qualitative assessment involved conducting a group interview in each school, with the participation of the head teacher or a representative of the management team appointed by the school, the DigiCraft coordinator and the teachers

involved in the programme. Group interviews were also conducted with pupils aged 9-12 years, with a minimum of 3-5 children selected from each school. Informed consent was obtained from all participants, including the necessary consent from the pupils' relatives or guardians, and the interviews were recorded.

In addition, for the phase two quantitative assessment, all teachers and school coordinators from all autonomous regions that had completed the full development cycle of the programme were given the opportunity to answer an online questionnaire.

The information obtained from the interviews was transcribed and coded for subsequent analysis using NVivo 14 software, and the information from the questionnaires was analysed descriptively and inferentially using SPSS 24 software.



Approaching some significant conclusions

2.1

Conclusions regarding
the assessment results

2.2

Conclusions on the
differential case study

2.1. Conclusions regarding the assessment results

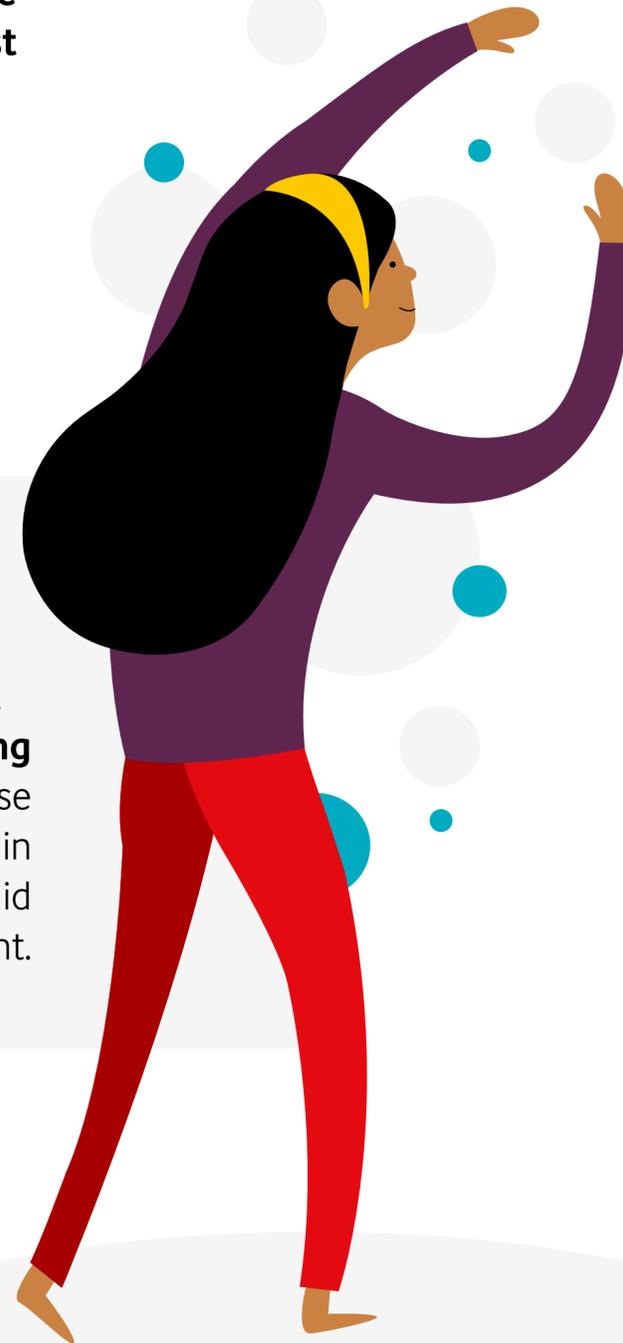
The overall findings are presented in four key areas: the impact of DigiCraft on pupils, on teachers, on the school and on users' opinions of the programme.



In general, it should be noted that, **although the sample increased during the second phase and other areas of the national territory have been reached, the results in most cases are very similar and corroborate the conclusions reached in the assessment conducted during the first phase (academic year 2022-2023).**

2.1.1 The DigiCraft programme's impact on pupils

All pupils considered that they had improved their digital knowledge and skills by learning to use technologies more effectively and safely; and were aware of the dangers of surfing the Internet, interacting with strangers or giving out their personal data. **They also recognised the importance and usefulness of learning about data protection** for their future. Their teachers backed these statements, saying that the activities have allowed them to analyse in the classroom very significant technology issues that the children did not know about, concerning the safe use of digital devices and content.



“When I started using DigiCraft, I had a lot of technology at home that I didn’t know how to use, but over time I have learned about the Internet, about technology and I’ve learned to use it better”
(pupil CEIP13-22-23).

Teachers underlined that pupils had understood that **technology goes beyond games and entertainment**. It favours independent and responsible learning, lets them create digital products, develop collaborative work, creativity and personal development skills, and stress that pupils took a much more participative attitude.

Furthermore, more than **75%** of the pupils (slightly more than in Phase I of the assessment) believed that they had learned **to work in a team and to respect their colleagues more**, stating that they have helped each other and feel more united.

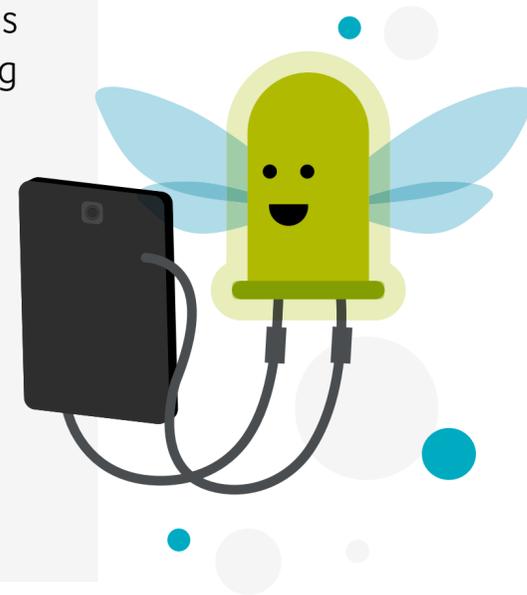
75%

Regarding DigiCraft's effect on pupils' motivation towards technology, teachers observed a **rise in pupils' curiosity, interest and creativity**. With a 2.5 percentage point-increase compared to the Phase I assessment, **90%** reported an increased **motivation to learn about and use technology**. Similarly, they pointed to the pupils' desire to continue learning, thanks to a variety of strategies such as playful learning, overcoming challenges, fun and curiosity. They also underscored **the programme's inclusive perspective**, which allows all pupils to progress.



As for the programme's impact on pupils' interest in school life, the teachers interviewed stressed that absenteeism had dropped since the programme was implemented ("children want to go to school if they are going to do DigiCraft that day"). However, this consideration was not backed up by the quantitative results (online questionnaire), which shows that the programme does not have much effect on reducing absenteeism and encouraging pupils to attend school. This may be because, as the sample of schools grew larger, the number of schools with a vulnerable population among their pupils, where absenteeism may be more significant, has grown smaller. Moreover, some pupils report being **so motivated that they involve their families in the programme** ("they explain what it is about and do activities together at home").

Pupils said they wished more subjects worked in the same way as DigiCraft, as they felt motivated and enthusiastic about participating in activities where they "play, have fun and learn". They valued positively that they learned skills necessary for their future (such as learning to programme). Some said that they engaged in the programme activities outside school hours, and some cases point to the **transfer of specific learning**, such as increased organisation, which results from having understood the importance of following a logical sequence of steps.



“When I get home, I tell my parents what I’ve done in DigiCraft and at home I usually install applications that we use in DigiCraft (pupil CEIP2-23-24).”

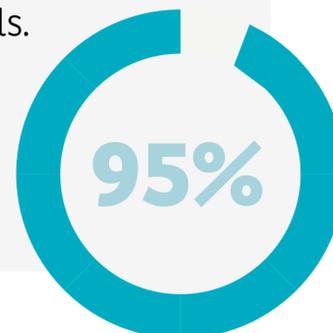
2.1.2. The DigiCraft programme's impact on teachers

An analysis of the programme's effect on teachers' digital skills points to **significant progress having been made through the training received and practical experience**. As a result, teachers stressed that their digital competence had increased in both technical and pedagogical aspects, they felt **greater initiative and confident in the educational, critical use of technology**; they said they had overcome their initial fears and felt a greater curiosity and desire to keep on learning.



Similarly, they continued to corroborate their **acquisition of social and people skills** ("teamwork and peer support").

95% of teachers (compared to 95.75% in the Phase I assessment) again reported that teaching DigiCraft made them feel **more motivated about their teaching activities**, showing them new ways of teaching that appeal more to pupils. They were particularly motivated by the different learning-by-doing and play-based methodology, and by enjoying the teaching and accompanying process. They also again reported **greater satisfaction with teaching**.



“You really learn how to do it when you take it into the classroom, but it made me feel very insecure because often I didn't even know how to start”
(teacher, CEIP1-23-24).

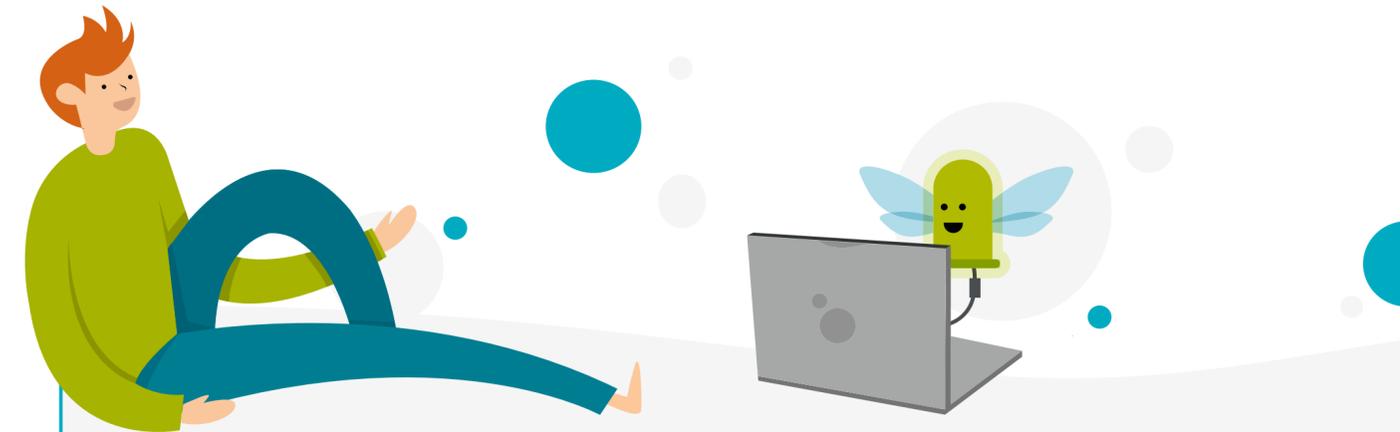
The teachers again strongly welcomed the implementation of experiential learning-based methodologies, emphasising the positive effects on pupil's development. They mentioned that they felt **more in contact with and closer to the pupils**, enjoying more horizontal communication that prompted richer experiences, almost like shared learning, where both teachers and pupils learn together and from each other. For their part, pupils again highlighted that they got on much better with their teachers, and how enthusiastic their teachers were in developing the programme.

2.1.3 The DigiCraft programme's impact at the school

As regards how the programme blends into school life, some teachers highlighted that DigiCraft has strengthened **their ability to lead other projects on their own**, helped them to develop other teaching skills, improved the school's environment and enabled them to start using the programme's activities, methodologies and resources in teaching different various subjects taught at the school, fostering a multidisciplinary approach. In this sense, they said they now have a wider range of tools to use in the classroom.

“Digitisation courses have been given and (DigiCraft) has been included as a specific course, so that everyone knows about it and can use it”.

(teacher, CEIP3-22-23).



Regarding DigiCraft's influence on the school's digitisation strategies and plans, teachers again said that **the programme has been integrated into the school's Digital Plan**. This has been achieved by using the technological resources provided in various activities and, in some cases, by reviewing teaching-learning methodologies and assessment strategies, more focused on challenge resolution. They also warmly welcomed the implementation of a **collaborative peer-to-peer training strategy**, which that has boosted the teachers' professional development, allowing “DigiCraft teachers” to train other colleagues within the same school.

Teachers and coordinators alike underscored **that families have welcomed** both the teaching methodology used and the results and competences that their children have learned.

2.1.4 Pupils' and teachers' assessment of the DigiCraft programme.

Pupils again highlighted the programme's **technological, playful, practical and fun approach**, while teachers placed most emphasis on the potential of the materials and activities, as well as its **detailed planning**, which guarantees the programme's success. They also positively stressed the experimentation-based methodology.



75%

If one considers the training and support that teachers receive in implementing the programme, DigiCraft can be said to offer a **holistic approach that includes well-structured activities, training and resources**, with guided activities adapted to the participants' age. It also helps to develop the **digital competence** of teachers and pupils alike, backed up by competent support from the DigiCraft team of trainers. Once again, **75%** of teachers considered that **the training and support offered by the programme is important, necessary and appropriate**. They also said that the support they received from the trainers was efficient and adequate.

When asked about the DigiCraft methodology, teachers again underlined the **change in pedagogical approach** it implies. In particular, they emphasised that it encourages teamwork, turning classrooms into more active, participatory, inclusive and cohesive environments, generating a “group feeling” among pupils. They also stressed the potential of the programme's range of visual aids for learning (recording videos, taking photos, etc.).

“People feel comfortable working in a way that everyone develops their own skills, which they can then pass them on to others and work as a team”
(teacher, CEIP3-22-23).



The **challenges** reported by teachers on how to develop DigiCraft continue in the same vein. Some mentioned that DigiCraft offers such a broad variety of educational options that sometimes this prevents them from dedicating enough **time** both to complete all the suggested activities and to further examine the necessary content. They also pointed to structural aspects such as the **school's teaching staff job instability** and the **teachers' limited participation** in the programme, as "only a few get involved".

Asked about the programme's future, some teachers suggested **the option of extending and enriching DigiCraft resources**. Their proposals include diversifying pathways, and creating levels tailored to pupils' needs, designing pathways based on learning situations that integrate different areas with a guiding theme thread and a final product; as well organising face-to-face sessions in collaboration with other institutions. They also proposed that DigiCraft integrate curricular content, so that it can be included in one or more subjects.

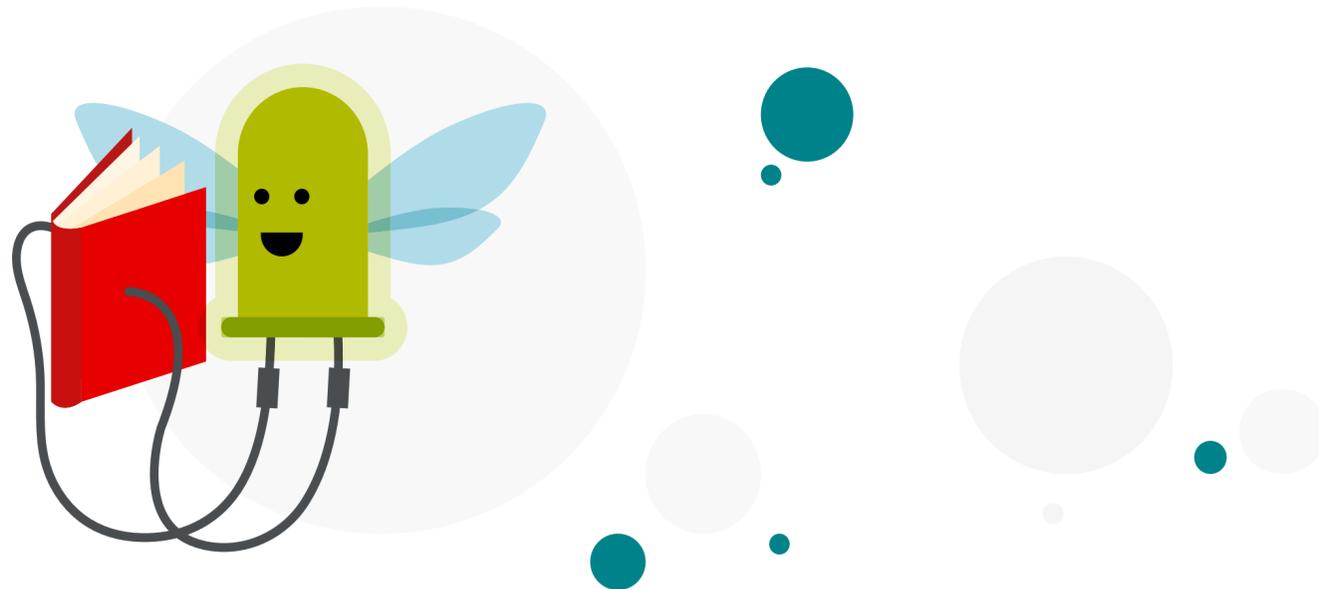


"I must stress the issue of materials... it's very well organised... it's an activity using these materials... and you just take the materials, and it works"
(teacher, CEIP2-23-24).



2.2. Conclusions on the differential case study

This report also analyses the repercussion of some school factors in relation to the impact of the DigiCraft programme. The most relevant conclusions are presented in three sections: how schools have integrated the technology; **the school's size**; and the **geographical context**, considering the autonomous region in which the schools are located and whether they are in a **rural or urban area**.



2.2.1. Depending on the school's technological integration

The majority of teachers expressed a positive opinion about all the DigiCraft programme's impact-related aspects, and a clear conclusion is that **the higher the school's level of technological integration, the better the teachers' opinions in this regard**. Teachers at schools with a high level of technological integration considered that the programme has had a very positive influence both on pupils' learning and development and on strengthening teachers' technological skills. They also had more favourable opinions about the programme's overall impact on the educational environment and its contribution to the school as an organisation.

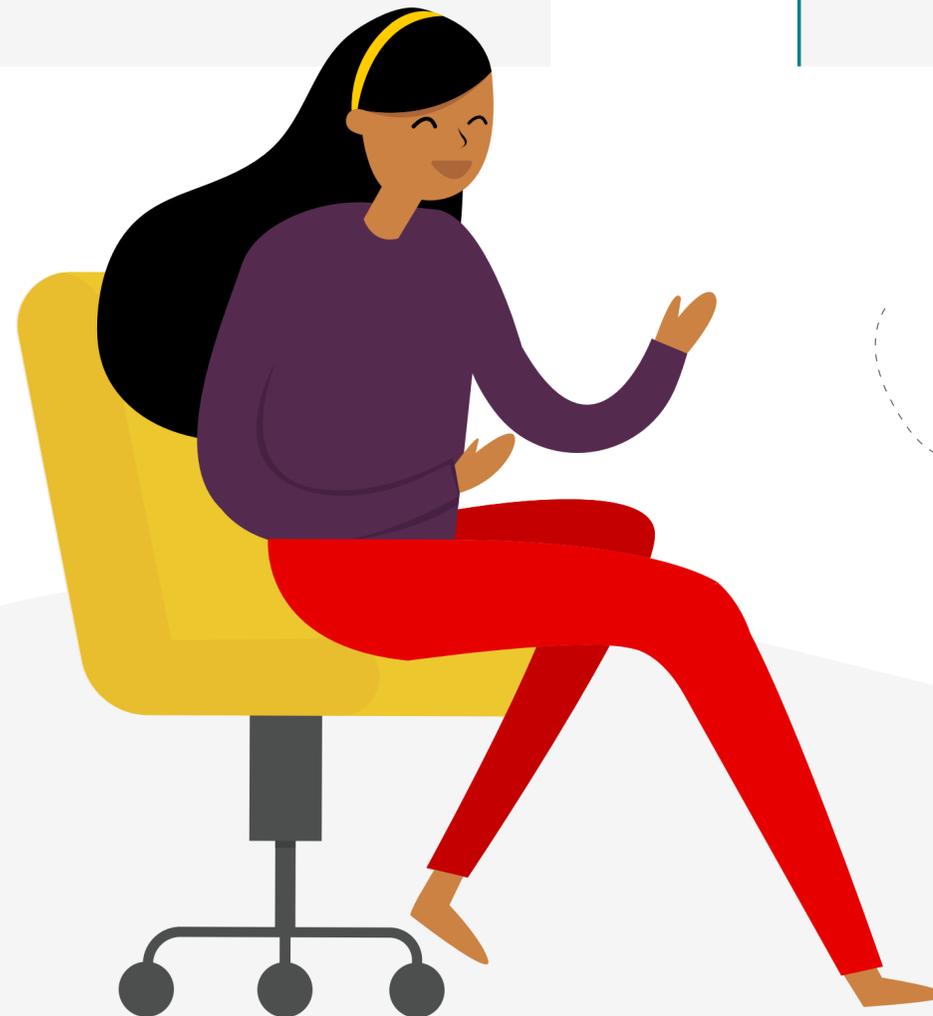
The differences found are significant and it can be said that the DigiCraft programme's benefits tend to be more prominent in those environments where technology is already more embedded and integral to the educational process.

In schools with less technological integration, there were more references to the acquisition of security-related digital skills.

2.2.2. Depending on the school's size

The majority of teachers positively rated the DigiCraft programme's impact in all assessed aspects, and it **scored significantly higher** among teachers in **small schools** (with only one school line).

The results show that small-school teachers referred more prominently to how it has boosted their initiative-taking capacity, medium-sized schoolteachers emphasised how it increased their social competence in relation to colleagues, while large-school teachers focused on how it increased their critical capacity when using technology.



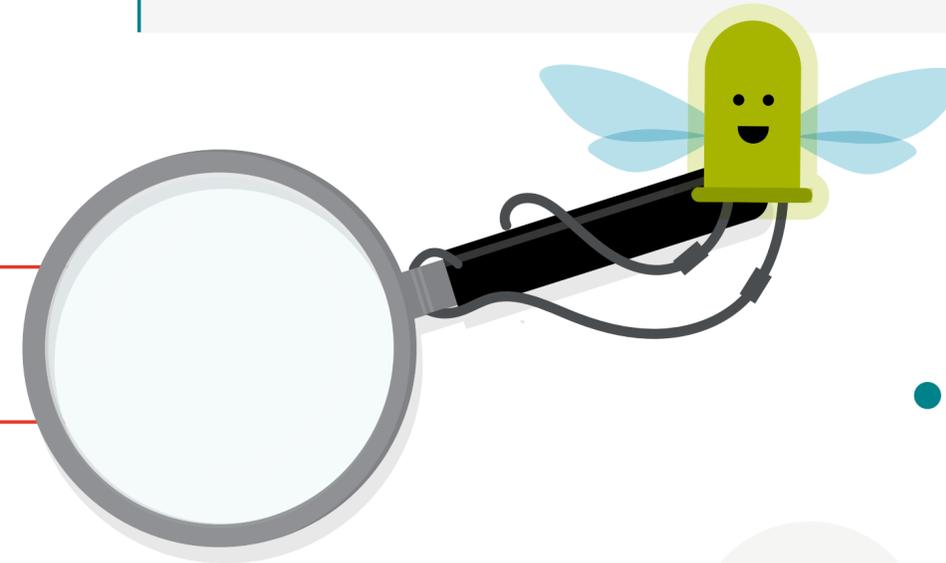
2.2.3. Depending on the school's geographical context

The teachers' autonomous region seems to influence the programme's impact, and it is teachers in Castille-León, Galicia, Aragón and Madrid who most positively rate the implementation of DigiCraft in their classrooms.

Significant differences emerge in certain aspects in line with the school's geographical area (rural/urban): **teachers working in rural areas rate DigiCraft much better**, for example because the programme has helped them to improve their digital competences, especially in relation to the critical, educational use of technology.

“We realised the enormous capacity and potential of this whole digital world”

(teacher, CEIP8-22-23).





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