Save the Children | Vodafone Foundation

# SMILE
# Monitoring Report

This executive summary provides an overview of the report led by Daniela Ritz, Senior Technical Advisor for Research, Evidence and Learning at Save the Children, with the support of Vodafone Foundation. Special thanks are extended to Vodafone Foundation colleagues and partner organizations in Romania, Spain, and Germany, who piloted the monitoring tool and provided the data that informed this report.

# Index

# 01 Key Findings

This report presents the findings from **2,400 student pre-intervention and 730 student post-intervention surveys conducted in Spain and Romania as part of the pilot implementation of the SMILE monitoring tool.**

Jointly developed by Save the Children (SCUK) and the Vodafone Foundation for the SUJ programme, this tool establishes a standardised and scalable approach to programme monitoring by assessing child-level outcomes across key dimensions, including digital literacy, critical thinking, safer online behaviours, and overall digital resilience.

The evaluation framework comprises **two harmonised questionnaires (administered to students and teachers before and after programme delivery)** to ensure consistent data collection, facilitate comparative analysis, and support cross-country learning. Specifically, the student surveys measured learning outcomes across eight core SMILE modules: "Friendly bots and real feelings I & II", "Hooked or helpful – Spotting digital tricks", "My digital footprint – Understanding privacy, permanence and safety", "Sharing with care – Understanding oversharing and digital consent", "Virtual companions I & II", "Behind your feeds – How algorithms decide", "Managing my data – Digital control and the power of choice", and "Digital boundaries – Consent, identity and sharing".

Complementing these data, the teacher tools captured observed changes in students' skills alongside teachers' own confidence in delivering the lessons and their perceptions of the content's relevance and usability.

Finally, because baseline and endline responses were not linked at the individual level, the findings presented herein reflect aggregate shifts observed at the group level rather than individual longitudinal progress.

## 1.1. Key outcomes

Overall, **strong improvements have been observed**, which is particularly encouraging given that measurement took place during the first implementation cycle of SMILE lessons. At this early stage, only a limited portion of the content had been delivered, and both measurement approach and KPIs are still being piloted. Across child-level indicators, there is a **clear trend of movement toward higher levels of competency and while some improvements are moderate, changes are consistent across areas.** At the same time teacher-level indicators show stark changes towards high levels. This positive trajectory is highly promising for the continuation of the SMILE framework.

| | |
|---|---|
| **Outcome 1: Children improved digital literacy and critical thinking online.**<br><br>Strong gains with children reaching high levels and declines in lower performance categories. | **Spain:** 33.4% of children demonstrated high levels of digital literacy and critical thinking online, representing a 9.6 pp increase, whilst low categories decreased by 6 pp. |
| | **Romania**: 41% of children demonstrated high levels of digital literacy and critical thinking online, representing 13.9 pp increase, whilst low categories decreased by 4.2 pp. |
| **Outcome 2: Children practiced safe and positive online behaviours.**<br><br>Modest improvements were observed, but smaller than those in other indicators, suggesting behavioural change may require longer-term reinforcement. | **Spain:** 59.2% of children practicing safe and positive online behaviours, representing a decrease by 1 pp, however lower levels shifted towards medium by 2 pp. |
| | **Romania:** 58% of children reported practicing safe and positive online behaviours, representing an increase by 3 pp. |
| **Outcome 3: Children improved digital resilience.**<br><br>Significant growth in digital resilience observed particularly for Romania. | **Spain:** 39% of children reported high levels of digital resilience, representing a 0.7 pp increase, whilst low categories decreased by 3.1 pp. |
| | **Romania:** 37.7% of children reported high levels of digital resilience, representing a 10.4 pp increase, whilst low categories decreased by 6.6 pp |

| | |
|---|---|
| **Outcome 4: Teachers increased confidence in teaching digital literacy and safety.**<br><br>Overall positive progress in teacher confidence with clear upward trends and notable reduction in lower-performing groups. | **Spain:** 30.5% of teachers/ educators reported high levels of confidence, representing a 12.4 pp increase with simultaneous substantial decrease of 21.1 pp in the proportion of teachers with low confidence. |
| | **Romania:** 78.26% of teachers/ educators reported high levels of confidence, representing a substantial 28.3 pp increase and simultaneous 4.3 pp and 17.4 pp decrease in low and medium level respectively. |
| **Outcome 5: Children improved skills and knowledge in digital literacy and safety (as perceived by teachers).**<br><br>Teachers consistently reported stronger gains in students' digital skills than students reported themselves. These difference are observed regularly, whereby adult's perceptions of children's experiences vary compared to children's own reporting, however a positive trajectory is evident. | **Spain:** 11.9% of children show high levels of skills and knowledge, as perceived by their teachers, representing an increase in 7.9 pp. |
| | **Romania:** 78.3% of children in Romania show high levels of skills and knowledge, as perceived by their teachers, representing an increase 48.6 pp. |

## 1.2. Other findings

- **Improved ability to identify misinformation and understand algorithms:** These areas of digital literacy showed particularly strong gains, reflecting SMILE's unique and up-to-date learning content. The share of children who reported understanding how apps and websites recommend content increased from 64.6% to 81.4% in Spain (+16.8 pp) and from 47.1% to 57.8% in Romania (+10.7 pp).
- **Consistent gender patterns across outcomes:** Girls generally reported greater improvements and were more likely to reach higher competency levels. These differences likely reflect broader trends in self-assessment, with girls tending to respond more cautiously and avoid overestimating their abilities, while boys often report higher confidence regardless of actual skill levels.

# 02 Monitoring Tool Context

This report summarises the findings from the pre- and post-intervention surveys conducted in Spain and Romania. It represents the pilot implementation of the SMILE monitoring tool, designed to **measure key outcomes** (including **digital literacy, critical thinking, safer online behaviours, and digital resilience**) through a standardised and scalable monitoring approach.

## 2.1. Survey administration and methodology

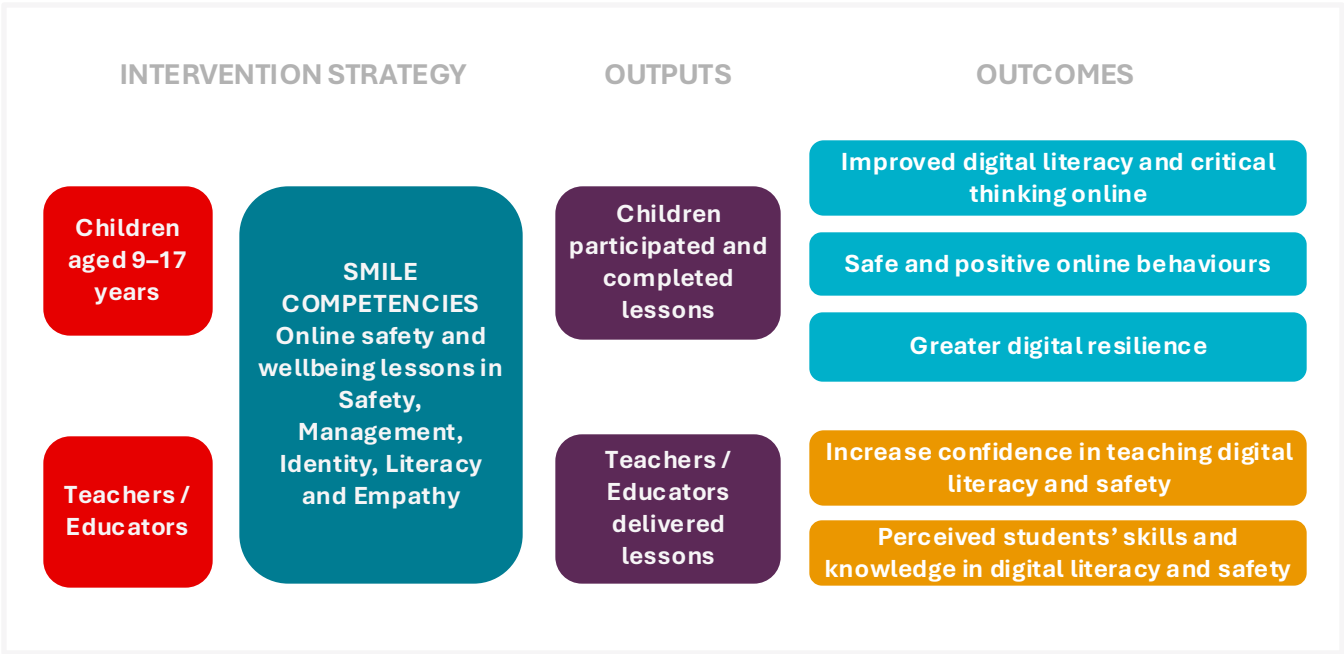
The monitoring tool includes **two surveys** (one for students and one for teachers) administered **before and after programme delivery.** Aligned with the SMILE competency framework, they measure changes in students' digital literacy, skills, and behaviours, as well as teacher's confide in delivering the lessons and their perceptions of the content's relevance and usability, rather than knowledge acquisition.


By using comparable questionnaires across countries, it facilitates efficient data collection, analysis, and cross-country learning. But, as survey responses are not linked between baseline and endline data collection, results reflect changes at the group level and findings cannot be used to determine the proportion of individual students who improved over time.

## 2.2. ToC and SMILE Pathway

All monitoring and measurement tools are grounded in the Skills Upload Junior (SUJ) Theory of Change, which provides a common framework for understanding how programme activities contribute to improved digital wellbeing. Within this framework, the SMILE pathway defines the specific outcomes expected for both children and teachers.

The monitoring tools **measure progress against that key outcomes** for both children and teachers.




## 2.3. Differences in implementation

**The framework focuses on shared outcomes, ensuring consistency, comparability, and robust evidence generation across implementations.** Although, differences in implementation models across countries may affect programme reach, consistency, and impact, including variations in teacher engagement, the amount of lesson content delivered, or the extent to which SMILE content is adapted.

These factors influence participants' exposure to the programme. In addition, some surveys may have been conducted too soon after programme delivery, limiting the ability to capture longer-term changes in skills and behaviours.

| Country | Implementation model |
|---|---|
| **Spain** | • Curriculum integrated in lessons in schools, teacher led.<br>• SMILE digital wellbeing aligned with national curriculum subjects in public schools.<br>• Minimum of 4 lessons implemented, includes certification. |
| **Romania** | • Open platform, not integrated in a specific curricular area.<br>• Training of trainer model for teacher, teacher can use localised lessons after ToT/webinars.<br>• Peer ambassadors. |
| **Germany** | • Roll out through project days (Coding for Tomorrow project days).<br>• All eight SMILE lessons published on website, national platform.<br>• Teacher trainings. |

Germany was excluded from the survey analysis because students had limited exposure to the SMILE lessons. The programme was delivered mainly through one-day workshops rather than through the full sequence of lessons, making it difficult to attribute any changes in student outcomes to the intervention. As a result, the data lacked sufficient validity and comparability, and Germany was therefore omitted from the analysis.

## 3.3. Learning about the tool

The monitoring process highlighted limitations in our ability to track individual or small-group progress at class level using the current methodology.

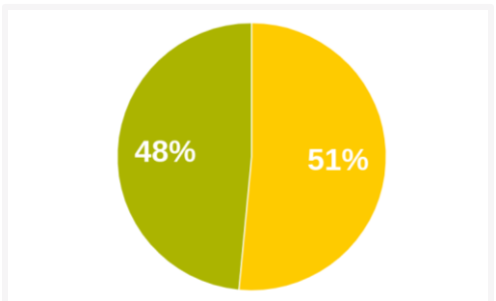
Future implementation will require either the development of a feasible and compliant tracking system that addresses data protection and cross-border data transfer requirements, or the acceptance of the current level of evidence that can be generated.

This reflection demonstrates how monitoring itself contributes to programme learning and continuous improvement by identifying methodological constraints and informing future decision-making.

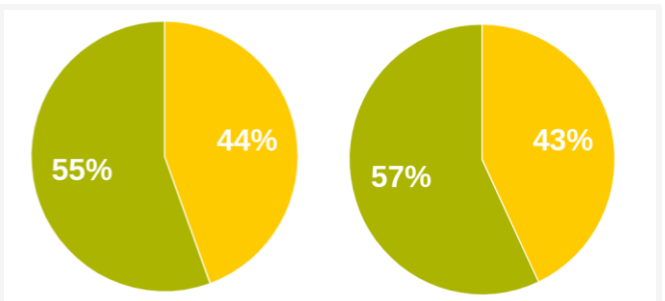
# 03 Demographic Summary

**More students responded to the pre-survey than to the post-survey in both countries.** However, the distribution across boys, girls, and 'other' categories remained very similar, if not identical. This supports the comparability of the results from the two surveys.

| Group | Spain | | | | Romania | | | |
|---|---|---|---|---|---|---|---|---|
| | Pre-survey | | Post-survey | | Pre-survey | | Post-survey | |
| **Total** | **1277** | **100%** | **332** | **100%** | **1141** | **100%** | **398** | **100%** |
| Boy | 650 | 51% | 170 | 51% | 498 | 44% | 171 | 43% |
| Girl | 614 | 48% | 159 | 48% | 629 | 55% | 225 | 57% |
| Other | 13 | 1% | 3 | 1% | 13 | 1% | 3 | 1% |

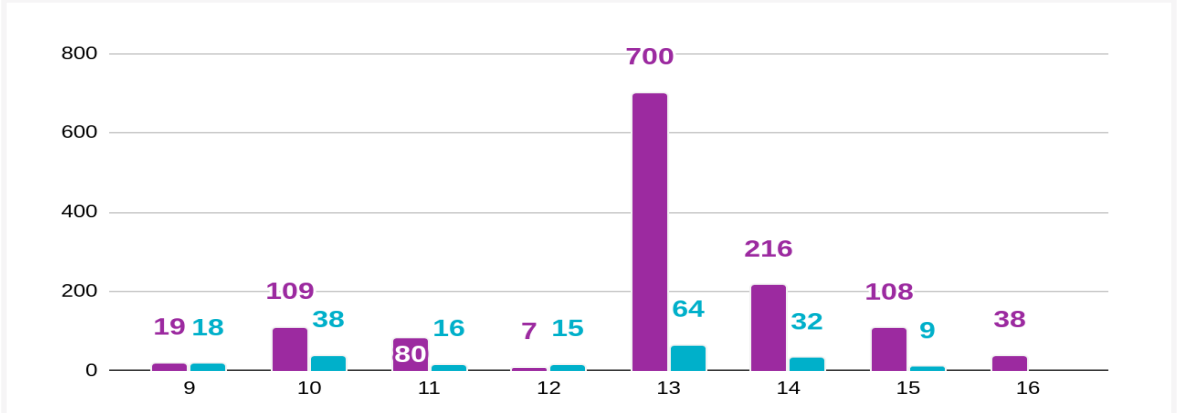



Pre- and post- Spain




Pre- and post- Romania


In Spain, most students in both surveys were aged 13–14 years. In Romania, the age distribution differed between surveys: the pre- included more students aged 15–16, whereas the post- was mainly composed of students aged 11–12 years, which may have influenced the results.




Similarly, **a larger number of teachers completed the pre-surveys than the post-surveys in both countries.** Due to small subgroup sizes in Spain, analyses were conducted for teachers as a whole rather than by sex. In Romania, teachers' sex was not recorded.

| Group | Spain | | | Romania | | |
|---|---|---|---|---|---|---|
| | Total | Pre | Post | Total | Pre | Post |
| **Total** | **186** | **127** | **59** | 184 | 138 | 46 |
| Female | 117 | 81 | 36 | | | |
| Male | 68 | 45 | 23 | | | |
| Other | 1 | 1 | 0 | | | |

# 04 Indicator Results

Data for five separate indicators was collected in the surveys, three for changes in children and two focussing on teacher responses.

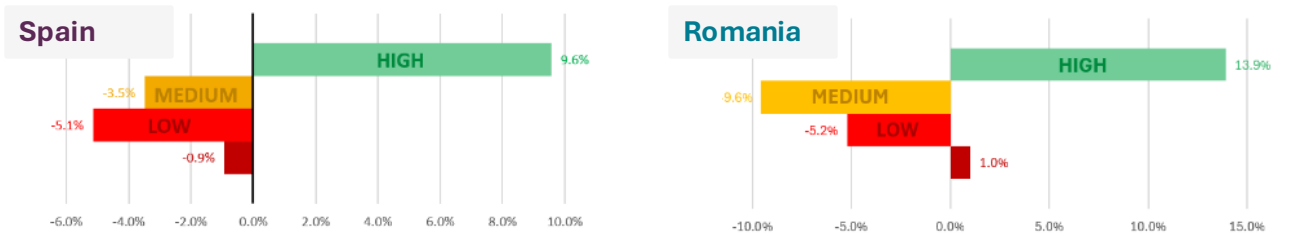
| Child-level indicators | Teacher-level indicators |
|---|---|
| **1.** Children demonstrating improved digital literacy and critical thinking online. | **4.** Teachers/educators with increased confidence in teaching digital literacy and safety. |
| **2.** Children practicing safe and positive online behaviours. | **5.** Children with improved skills and knowledge in digital literacy and safety (as perceived by teachers). |
| **3.** Children with increased digital resilience. | |

## 4.1. Child-level indicators

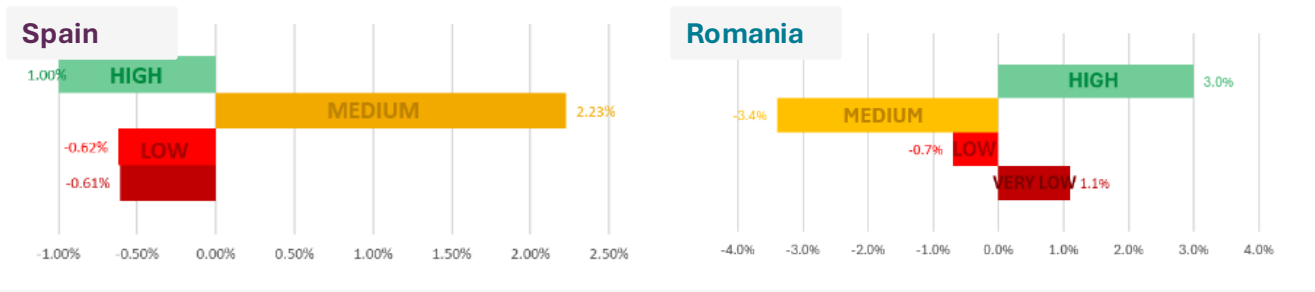
There are **clear changes in children's skills, behaviours and digital resilience**, with more children reporting higher or medium levels.

Differences can be observed within the countries. Across indicators, there is a clear trend of movement toward higher levels of competency, suggesting that more children are demonstrating stronger digital literacy and safer online practices. However, Indicator 2 for instance shows smaller changes than Indicator 1, suggesting that changing online behaviours may be more challenging and may require longer-term reinforcement.

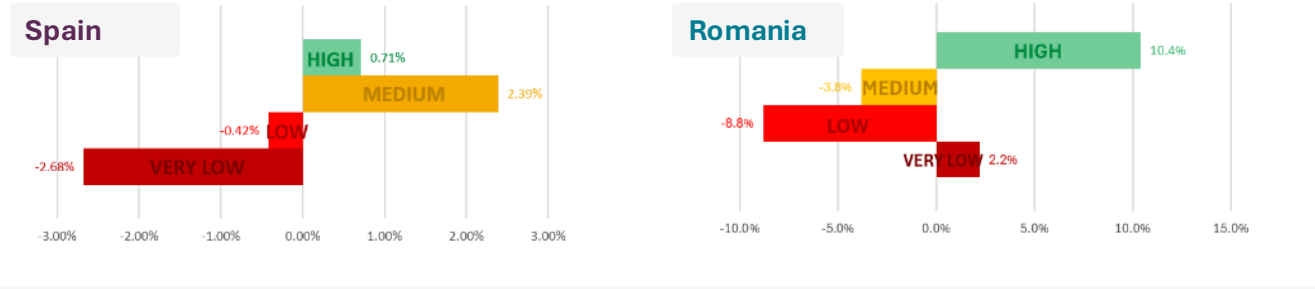
### INDICATOR 1: Change in digital literacy and critical thinking levels




### INDICATOR 2: Change in safe and positive online behaviours




### INDICATOR 3: Change in children's digital resilience




Very low Low Medium High

## INDICATOR 1 - Change in digital literacy and critical thinking levels

**33.4% of children in Spain and 41% of children in Romania demonstrated high levels of digital literacy and critical thinking online, representing a 9.6 and 13.9 percentage point increase respectively.**

Indicator 1 assesses changes in children's digital literacy and critical thinking skills following participation in SMILE sessions, focusing on the proportion reaching a 'high' competency level. Across both Spain and Romania, results show a clear shift from low and medium competency levels towards higher levels, indicating positive programme effects. This is reflected in an increase in the proportion of children achieving high levels of digital literacy and critical thinking, alongside a decline in those in the lower categories.

Although improvements were observed across all groups, **the scale and distribution of change varied somewhat by country and gender.** Country-level differences may reflect variations in digital literacy contexts, prior experiences, and implementation approaches. Gender differences are likely influenced by self-reporting patterns, with research suggesting that girls tend to assess their abilities more cautiously and are more likely to select 'not sure', while boys often report higher confidence regardless of actual skill levels.

**Spain - Change in percentage points**

| | All children | | | Boys | | | Girls | | |
|---|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Change | Pre | Post | Change | Pre | Post | Change |
| Very low | 2.7% | 1.8% | -0.9% | 2.60% | 0.59% | -2.0% | 2.60% | 3.11% | 0.5% |
| Low | 14.7% | 9.6% | -5.1% | 12.08% | 8.82% | -3.3% | 17.37% | 9.94% | -7.4% |
| Medium | 58.7% | 55.2% | -3.5% | 58.10% | 53.53% | -4.6% | 59.74% | 57.14% | -2.6% |
| High | 23.9% | 33.4% | 9.6% | 27.22% | 37.06% | 9.8% | 20.29% | 29.81% | 9.5% |

**Romania – Change in percentage points**

| | All children | | | Boys | | | Girls | | |
|---|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Change | Pre | Post | Change | Pre | Post | Change |
| Very low | 6.8% | 7.8% | 1.0% | 8.40% | 12.30% | 3.9% | 5.60% | 4.40% | -1.2% |
| Low | 20.8% | 15.6% | -5.2% | 21.70% | 15.80% | -5.9% | 19.60% | 15.60% | -4.0% |
| Medium | 45.3% | 35.7% | -9.6% | 44.80% | 35.70% | -9.1% | 46.40% | 36.00% | -10.4% |
| High | 27.1% | 41.0% | 13.9% | 25.10% | 36.30% | 11.2% | 28.50% | 44.00% | 15.5% |

## INDICATOR 2 - Change in safe and positive online behaviours

**59.2% of children in Spain and 58% of children in Romania reported practicing safe and positive online behaviours, representing a decrease by 1 percentage point in Spain and an increase by 3 percentage points in Romania.**

Indicator 2 presents changes in children reported safe and positive online behaviours following participation in SMILE lessons. There are modest improvements in safe and positive online behaviours, particularly in Romania, though not to the same extent as seen for digital literacy and critical thinking. The distribution of responses shows small shifts between categories rather than large movements into the highest level. One explanation could be that a change in behaviour is typically more complex and takes longer to achieve than knowledge or skills acquisition. Notables are also gender differences in the changes, with girls showing stronger improvements.

### Spain - Change in percentage points

| | All children | | | Boys | | | Girls | | |
|---|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Change | Pre | Post | Change | Pre | Post | Change |
| Very low | 2.1% | 1.5% | -0.6% | 2.15% | 1.18% | -1.0% | 2.11% | 1.26% | -0.9% |
| Low | 12.0% | 11.4% | -0.6% | 14.13% | 15.29% | 1.2% | 9.74% | 7.55% | -2.2% |
| Medium | 25.7% | 27.9% | 2.2% | 28.57% | 28.24% | -0.3% | 22.57% | 27.04% | 4.5% |
| High | 60.2% | 59.2% | -1.0% | 55.15% | 55.29% | 0.1% | 65.58% | 64.15% | -1.4% |

### Romania - Change in percentage points

| | All children | | | Boys | | | Girls | | |
|---|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Change | Pre | Post | Change | Pre | Post | Change |
| Very low | 3.9% | 5.0% | 1.1% | 4.40% | 9.40% | 5.0% | 3.50% | 1.80% | -1.7% |
| Low | 17.8% | 17.1% | -0.7% | 20.70% | 20.50% | -0.2% | 15.40% | 14.70% | -0.7% |
| Medium | 23.2% | 19.8% | -3.4% | 22.50% | 20.50% | -2.0% | 24.00% | 19.60% | -4.4% |
| High | 55.0% | 58.0% | 3.0% | 52.40% | 49.70% | -2.7% | 57.10% | 64.00% | 6.9% |

## INDICATOR 3 - Change in digital resilience

**39% of children in Spain and 37.7% of children in Romania with increased reported high levels of digital resilience, representing a 0.7 and 10.4 percentage point increase respectively.**

Indicator 3 measures changes in children's digital resilience. Overall, findings from both Spain and Romania indicate a positive trajectory with a general pattern of movement away from lower levels of digital resilience towards higher levels, suggesting that the programme is contributing to strengthening children's coping and adaptive skills in digital environments. While Spain shows more modest overall shifts, Romania demonstrates stronger gains in the 'high' category. Gender-disaggregated results reveal nuanced differences in boys and girls, particularly with regards to shifts between medium and high resilience levels.

### Spain - Change in percentage points

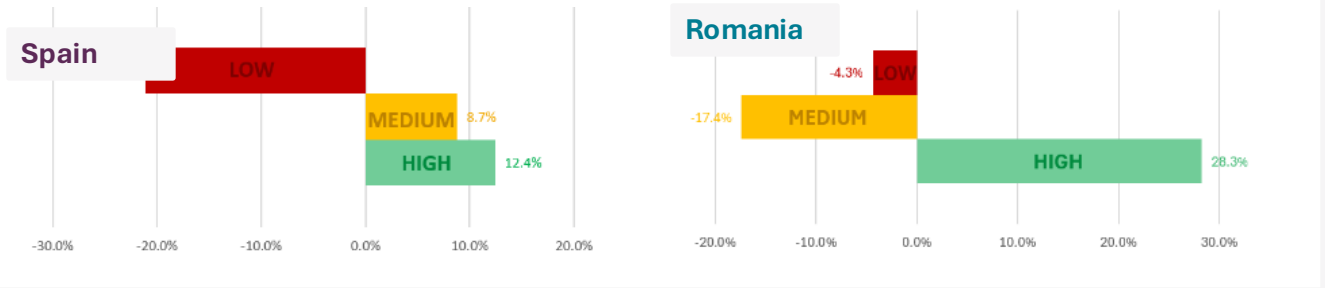
| | All children | | | Boys | | | Girls | | |
|---|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Change | Pre | Post | Change | Pre | Post | Change |
| Very low | 3.3% | 0.6% | -2.7% | 3.83% | 0.59% | -3.2% | 2.76% | 0.63% | -2.1% |
| Low | 22.6% | 22.2% | -0.4% | 22.70% | 21.77% | -0.9% | 22.57% | 22.01% | -0.6% |
| Medium | 35.8% | 38.1% | 2.4% | 32.52% | 38.24% | 5.7% | 39.12% | 37.74% | -1.4% |
| High | 38.3% | 39.0% | 0.7% | 40.95% | 39.41% | -1.5% | 35.55% | 39.62% | 4.1% |

### Romania - Change in percentage points

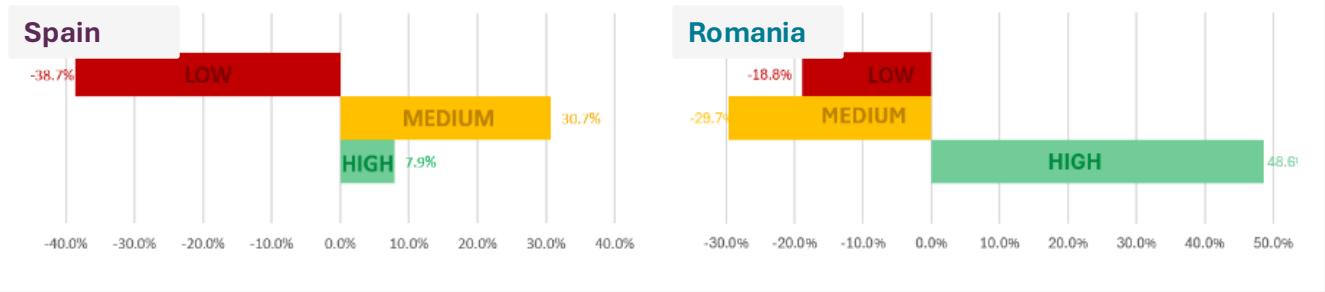
| | All children | | | Boys | | | Girls | | |
|---|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Change | Pre | Post | Change | Pre | Post | Change |
| Very low | 6.1% | 8.3% | 2.2% | 6.80% | 11.70% | 4.9% | 5.40% | 5.80% | 0.4% |
| Low | 39.2% | 30.4% | -8.8% | 38.00% | 32.70% | -5.3% | 40.40% | 28.90% | -11.5% |
| Medium | 27.4% | 23.6% | -3.8% | 26.30% | 21.10% | -5.2% | 28.50% | 25.80% | -2.7% |
| High | 27.3% | 37.7% | 10.4% | 28.90% | 34.50% | 5.6% | 25.80% | 39.60% | 13.8% |

## 4.2. Teacher-level indicators

### INDICATOR 4: Change in teacher confidence




### INDICATOR 5: Change in children's digital abilities as perceived by teachers




Very low  Low  Medium  High

## INDICATOR 4 - Change in teacher's confidence

**30.5% of teachers/ educators in Spain and 78.26% of teachers/ educators in Romania reported high levels of confidence in teaching digital literacy and safety topics, representing a 12.4 and 28.3 percentage point increase respectively.**

Teacher confidence in delivering digital literacy and online safety topics increased in both countries following participation in SMILE. In Spain, the proportion of teachers reporting high confidence rose from 18.1% to 30.5% (+12.4 percentage points), while the share reporting low confidence fell by 21.1 percentage points. In Romania, high confidence increased from 50.0% to 78.3% (+28.3 percentage points), reflecting a particularly strong improvement. Overall, the results suggest that the programme helped teachers feel better equipped to address topics such as online privacy, algorithms, digital wellbeing and online interactions.

**Spain - Change in percentage points**

| | Pre | Post | Change |
|---|---|---|---|
| High | 18.11% | 30.51% | 12.4% |
| Medium | 59.06% | 67.08% | 8.7% |
| Low | 22.84% | 1.70% | -21.1% |

**Romania - Change in percentage points**

| | Pre | Post | Change |
|---|---|---|---|
| High | 50.00% | 78.26% | 28.3% |
| Medium | 28.26% | 10.87% | -17.4% |
| Low | 15.22% | 10.87% | -4.3% |

## INDICATOR 5 - Change in rating of student's abilities

**11.9% of children in Spain and 78.3% of children in Romania show high levels of skills and knowledge in digital literacy and safety, as perceived by their teachers, representing an increase in 7.9 and 48.6 percentage points respectively.**

Teachers in both countries reported improvements in students' digital literacy and online safety skills following participation in SMILE. In Spain, the proportion of students perceived as having high levels of digital skills increased from 3.9% to 11.9% (+7.9 percentage points), while the share rated as low ability fell sharply from 48.8% to 10.2%. In Romania, the proportion of students rated as having high digital abilities increased from 29.7% to 78.3% (+48.6 percentage points), accompanied by substantial reductions in the low and medium categories. Overall, the findings suggest a clear improvement in students' digital competence as perceived by teachers, particularly in Romania.

**Spain - Change in percentage points**

| | Pre | Post | Change |
|---|---|---|---|
| High | 3.94% | 11.86% | 7.9% |
| Medium | 47.24% | 77.97% | 30.7% |
| Low | 48.82% | 10.11% | -38.7% |

**Change in percentage points - Romania**

| | Pre | Post | Change |
|---|---|---|---|
| High | 29.71% | 78.26% | 48.6% |
| Medium | 51.45% | 21.74% | -29.7% |
| Low | 18.84% | 0.00% | -18.8% |