

# Leveraging National Assessment Data to Guide Overall School Development

## Case studies: Data Literacy initiatives in schools

### Introduction

This case study is one of five developed from interviews with members of school teams and national policy authorities who have contributed to school initiatives focused on the development of teachers' data literacy or the implementation of practices of using data for teaching and learning in schools. The schools are located in five countries: Malta, Italy, Croatia, Slovenia and Greece. The data literacy initiatives represented in these

cases have been implemented at different levels: two of them represent data literacy initiatives developed by schools, one of them has been developed by teachers, and two of them have been developed at national level, with the case studies focusing on how particular schools have implemented it. The purpose of data collection and analysis varies between case studies: in some cases, improving teaching quality is the main focus, in other cases, it is observing and monitoring students' performance, and in one case the focus is on preventing early school leaving.

The intention of these case studies is to illustrate how data can be leveraged to improve education processes and inform education policy at school level. Therefore, we hope they help as inspiration and illustration for other educators and schools. To navigate these case studies, we recommend that you take a look at the yellow text box. Here, you can find a summary of the key characteristics of each of them. Bear in mind that each school is situated in a different location and context. Therefore, to replicate an initiative you may want to modify its activities. We have included a section about "Transferability" which may help in adapting the initiative to your context.

The EVIDALI project<sup>1</sup> (Evidence-Informed Data Literacy for Policy & Practice), coordinated by European Schoolnet, is an Erasmus+ European Policy Experimentation project that brings together ministries of education, regional authorities, research institutes, and teacher training organisations from four education systems (Malta, Castilla y León in Spain, Madeira in Portugal, and Trento in Italy). Its overall aim is to strengthen the capacity of policymakers and practitioners to design and

#### This Data Literacy Initiative at a glance

**Country:** Slovenia

**Age of students:** 6 to 15 years

**Level of implementation:** School and national levels

**Focus on the initiative:** Enhancing student performance and teaching practice, strategic school development

**Keywords:** national examination, assessment, student performance; improved teaching practice, school development data literacy, data analysis

<sup>1</sup> EVIDALI project website: <https://evidali.eun.org/>

implement effective, evidence-informed data literacy strategies for schools. The project aims to take an early step in understanding how data can be more efficiently utilised to improve teaching and learning processes at schools. This comes at a crucial time for digital education, with the introduction of Artificial Intelligence (AI) in education, new regulations surrounding data privacy, and new approaches to keep young students safe in a digital world. The project examines existing different data literacy initiatives in primary and secondary schools across EU Member States and explores how these initiatives are being implemented in schools.

## National context

### The education system in Slovenia

The Slovenian education system is organised as a publicly funded service delivered by public and private institutions offering accredited programmes. Public schools are primarily funded and regulated by the state, while municipalities are responsible for early childhood education and compulsory basic education. Compulsory education consists of a single-structure **nine-year basic school** (primary and lower secondary education programme) for students aged 6 to 15. After completing basic education, students' progress to secondary education, which includes **general (gimnazija), technical, and vocational programmes** lasting between two and five years, depending on the chosen pathway (Eurydice, 2025).

### Data Strategies in Education in Slovenia

Slovenia has developed a coordinated approach to the use of data as part of its broader digital transformation and digital education strategies. The **Digital Education Action Plan 2021–2027** (ANDI), adopted in 2022, aims to integrate digital technologies into teaching and learning, ensuring effective use of digital tools, digital content, and data-supported education processes (Ministry of Education, MVI 2022). A key national framework is the **Digital Slovenia 2030 Strategy**<sup>2</sup>, which promotes digital transformation across society, including education. The strategy includes measurable indicators and priorities such as digital public services, digital competences, cybersecurity, and the development of a digitally supported education system capable of monitoring performance and supporting innovation. It also emphasises strong data governance and data management practices as part of its public digital services strategy. This includes improving database management, ensuring data accuracy, strengthening technical and administrative capacity, and enabling the reuse and interoperability of data across public systems, including education. (Ministry of Public Administration, 2023).

The use of **education data** is supported by national digital infrastructure, particularly the Academic and Research Network of Slovenia (ARNES), a public institution responsible for developing and managing secure communication networks, digital platforms, and cloud services for education and research. This infrastructure enables reliable connectivity, secure data exchange, and access to digital education services across schools and educational institutions. Education data is collected and

<sup>2</sup> [https://www.gov.si/assets/ministrstva/MDP/Dokumenti/DSI2030-potrjena-na-Vladi-RS\\_marec-2023.pdf](https://www.gov.si/assets/ministrstva/MDP/Dokumenti/DSI2030-potrjena-na-Vladi-RS_marec-2023.pdf)

managed at both school and central levels to **support the monitoring, planning, and continuous improvement of the education system**. Schools collect and process data on student enrolment, attendance, assessment results, and academic progress in accordance with data protection regulations, while the Ministry of Education maintains central databases to ensure consistent data management and enable analytical and statistical research. These data systems support both individual-level monitoring of student performance and system-level evaluation of education outcomes, contributing to quality assurance, evidence-based policymaking, and the improvement of teaching and learning practices (European Schoolnet, 2024).

## OrKa - Tool for evaluating the quality of demonstrated knowledge

As a concrete example of data use within the Slovenian education system, the National Examinations Centre (RIC<sup>3</sup>) has developed **OrKa**, a **digital tool designed for education professionals in primary schools to support the evaluation and improvement of school quality**. It provides a **secure and confidential environment for accessing assessment data** and offers users a **clear overview of student performance in national assessments at both the school and national levels**. The platform enables various types of comparisons, including comparisons between students within the same school and their peers nationally, between different classes or learning groups, and across different years. School leaders and teachers can conduct detailed item-level analyses, review individual assessment tasks along with correct solutions, and examine digitised student responses. This allows educators to identify students' strengths and areas where further improvement is needed. In addition, the platform includes value-added analysis, which measures student progress over time, particularly tracking knowledge development between grades 3, 6 and 9. This supports schools in monitoring learning outcomes and improving teaching practices through evidence-based insights.

The **National Assessment of Knowledge** is conducted in grades 3, 6, and 9 and assesses Slovenian language (or Italian/Hungarian in bilingual areas), Mathematics, and an additional subject in grade 6, such as a foreign language and in grade 9 another subject determined by the Ministry. The assessments are compulsory and provide feedback on students' knowledge, but they do not affect school grades or school rankings. Instead, the results help teachers and parents better understand student progress and support educational planning. Student results are reported alongside national averages, and grade 9 results may be considered in cases of limited enrolment in upper secondary education (Eurydice 2025).

This case study explores how a school has **implemented OrKA to support evidence-based decision-making and enhance student learning**.

## School context

This case study focuses on the experience of **Primary School prof. dr. Josipa Plemlja** with the OrKa digital tool, as shared by **Ms. Tanja Müller, School Principal**. The school is a public primary school located in **Bled, Slovenia**, providing compulsory basic education to pupils aged 6 to 15. The school

<sup>3</sup> <https://www.ric.si/en/>

operates from its main campus in Bled and includes two branch schools in surrounding villages, serving the wider local community. This semi-urban school comprises 654 students taught by 65 teachers. The school is actively involved in national and international projects, including Erasmus+ and UNESCO programmes, which support innovation, digital learning and international cooperation. It also participates in projects aimed at developing students' digital skills and improving teaching practices through the use of technology and data. Through its educational activities and project participation, the school promotes quality education, student development, and continuous improvement of teaching and learning processes.

## Implementation

### Data literacy initiative

Committed to continuous improvement of teaching and learning, the school has been **using student performance data from national assessments since 2020 to monitor learning outcomes, identify areas for improvement, and support evidence-based teaching practices**. This data-informed approach has enabled school staff to reflect on student progress, adapt instructional strategies, and enhance the overall school development and quality of education.

### Problem identification

The school uses national assessment data to **identify strengths and weaknesses** in student learning. Analysis of assessment results helps school leadership and teachers determine specific areas, for example students' foundational knowledge of Slovene language where students perform below or above the national average. The school also examines **possible underlying causes** of lower performance, such as language barriers among foreign students, changes in textbooks, or gaps in curriculum implementation. This process helps teachers understand whether certain learning objectives were insufficiently addressed or whether students require additional support in specific areas.

### Activities

Following the release of national assessment results, the school prepares a **comprehensive internal report analysing student performance and identifying priority areas for improvement**. For example, students' numeracy and literacy skills are reinforced not only in Maths or Slovene, but across disciplines, such as physics, chemistry and other subjects. The findings are discussed during teacher conferences, where **teachers collaboratively develop recommendations and guidelines** for the following school year. At the beginning of the new school year, meetings are organised involving teachers from different grade levels to ensure continuity and alignment in teaching. This allows teachers to focus more effectively on key learning goals, avoid unnecessary repetition, and ensure that important competencies are progressively developed across grades. As a result, national assessment data supports **coordinated planning**, improves teaching practices, and strengthens student learning outcomes across the school.

## Use of data

The school uses data from national assessments, accessed through the OrKa platform, to conduct **detailed analysis of student performance** at the level of subjects, learning goals, and individual tasks. Teachers review assessment reports to identify patterns, compare school performance with national averages, and monitor progress over time. The data is not used only by subject teachers but is **shared across the school** to support broader pedagogical planning. Teachers analyse how students performed in different areas and use this information to reflect on teaching practices, curriculum coverage, and instructional effectiveness. This data-driven approach enables teachers to make informed decisions about teaching priorities and curriculum planning. An important factor in the effective use of national assessment data has been the **creation of a safe and supportive environment for teachers** to analyse and discuss results. School leadership emphasises that assessment data should not be used to compare teachers with one another, but rather to support individual reflection and professional growth over time. During discussions, teachers consider the specific context of their classes, including class size, the number of students with special educational needs, and the presence of students who are still developing proficiency in Slovene language. This helps ensure that results are interpreted fairly and meaningfully. Teachers are encouraged to focus on their own progress across years and identify areas where teaching strategies may need adjustment. By **fostering trust, openness and collaboration**, the school has created a **positive culture where teachers are more willing to engage with data**, learn from each other, and work together to improve teaching and learning.

All student data is processed in **accordance with GDPR** requirements and securely stored on national education information systems and servers.

## Challenges and solutions

One of the main challenges in using national assessment data is the **limited availability of complete student data**, particularly for students who transfer to the school after earlier assessment cycles. For example, when a student joins the school in grade 7, teachers may not have access to that student's national assessment results from grade 6. This makes it more difficult for teachers to quickly identify the student's strengths and learning needs and requires additional time to assess their level of knowledge. Another challenge is ensuring that **teachers have the skills and time to effectively interpret and use the data**. While the platform provides detailed information, **meaningful analysis requires data literacy and collaborative reflection among teachers**.

The school has actively addressed these challenges by **promoting collaboration and communication** among teachers and by advocating for improvements at the national level. The school leadership and teachers have expressed their needs to the National Centre and explained why a **broader access to assessment data from earlier grades is essential** for their work. This has already led to improvements, such as the inclusion of national assessment data from grade 3, which is now available to schools. The school also supports teachers through regular meetings, collaborative analysis, and shared discussions. This has led to helping teachers interpret the data and integrate it into their teaching practice. These **processes strengthen teachers' ability to use data effectively** and reduce the time needed to identify student needs.

## Outcomes and added value

The use of national assessment data has **strengthened collaboration and curriculum alignment across subjects and grade levels**. Teachers have used the data to identify key areas where students need additional support. The use of assessment data has also strengthened **vertical alignment between grade levels** and improved teachers' understanding of **curriculum progression**. For example, when some teachers began teaching the same subjects in both grade 5 and grade 6, they gained valuable insight into how knowledge develops over time. For example, teachers were able to identify gaps in students' basic knowledge and decided to focus spend more time on teaching basic concepts in 5<sup>th</sup> grade and then introduce more advanced topics in the 6<sup>th</sup> grade. This helped them better understand which foundational concepts need to be strengthened in earlier grades and how these are built upon in later years. As a result, teachers have adjusted their teaching pace, focused more on core competencies and improved coordination across grade levels. This has encouraged greater collaboration among teachers and reinforced the understanding that student learning is a continuous process that is successful if there is **shared responsibility across subjects and grades**. Overall, this approach has contributed to coherent curriculum planning, effective teaching practices, and better support for student learning.

## Impact

The use of national assessment data has had a significant impact on teaching practices and cross-curricular collaboration across the school. By analysing assessment results, teachers have been able to identify specific areas where students need additional support and **introduced a coordinated and evidence-based approach to teaching**. For example, Mathematics teachers observed that students had difficulties with unit conversions and decimal numbers. In response, teachers from related subjects such as Physics and Chemistry also integrated these skills intentionally into their lessons. This **cross-curricular approach** strengthened students' understanding of mathematical concepts. Similarly, analysis of national assessment results in Slovene language revealed weaknesses in reading comprehension. As a result, the school implemented a whole-school strategy to improve reading skills across all subjects, not only in language classes. Teachers began regularly incorporating activities that required students to read, understand and extract information from texts. This helped students develop essential literacy skills more consistently and improved the overall quality of teaching and learning. In this **collaborative way of using data to guide instructional decisions across different subjects**, the school has enhanced students' key competencies and improved the quality of teaching and learning across the school.

## Lessons learned and recommendations

- **Create a safe and supportive school culture for data use.** Assessment data should be used as a tool for reflection, not for evaluating or comparing teachers. A trusting environment encourages teachers to engage with data and collaborate openly.
- **Support teachers, especially new teachers, in using assessment data.** Understanding data and knowing how to conduct data analysis helps teachers better understand curriculum expectations, prioritise essential learning goals and improve their instructional practice.

- **Promote shared responsibility for student learning.** National assessment results should be used by all teachers, not only subject teachers. Cross-curricular collaboration contributes to quality enhancement and whole school development.
- **Use data to support teaching improvement and curriculum alignment.** Analysing results over time helps teachers identify learning gaps, adjust teaching strategies and ensure that students effectively develop their knowledge across grade levels.
- **Use data to strengthen student competencies.** National assessments provide insight not only into curriculum coverage but also into students' critical thinking, reading comprehension, and ability to apply knowledge.

## Transferability

This data use approach is highly transferable to other schools and education systems that have access to student assessment data and are willing to use it to support teaching and learning improvement. The key enabling factors are not only the availability of data tools, such as national assessment platforms, but also **strong school leadership, a collaborative culture and a safe environment where teachers can reflect on results without fear of judgement.** The model does not require additional resources, but rather a **structured process of analysing data, discussing results collectively and using insights to guide teaching and curriculum planning.** By promoting **shared responsibility, cross-curricular collaboration and continuous reflection,** schools can use assessment data to strengthen teaching practices, support student learning progression, and improve education quality.

## Conclusion

This case study demonstrates how the **systematic use of national assessment data** can support meaningful improvements in teaching and learning when combined with **strong leadership, collaboration and a supportive school culture.** By using data not as a tool for evaluation but as a resource for **reflection and development,** the school has enabled teachers to identify learning needs, align curriculum across subjects and grade levels and implement targeted teaching strategies. The use of the **OrKa platform and national assessment results** has strengthened **cross-curricular cooperation,** improved curriculum planning, enhanced student performance and supported their skill development.

Finally, it is also important to notice, that teachers may initially perceive the **use of assessment data** as an additional burden, especially given their already demanding workload. This concern is understandable, as teachers are often managing many responsibilities simultaneously. However, while there is an **initial investment of time** required to become familiar with the data and analytical tools, this process ultimately **supports teaching and reduces workload in the long term.** By providing clearer insights into students' strengths and learning needs, **data helps teachers make more targeted instructional decisions,** avoid unnecessary repetition, and focus their efforts more effectively. As a result, **the use of data becomes a valuable support** rather than an additional task and it contributes to **more efficient teaching and improved learning outcomes.**

## Acknowledgements

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