

# Sumdog in Scottish Schools



## Interim Report

ImpactEd Scotland Efficacy Study – March 2026





## Overview

Sumdog is a maths practice platform for pupils aged 5–14, using games-based learning and adaptive practice to build fluency and confidence. It aligns with the Scottish Curriculum for Excellence and adapts questions to each pupil's ability level through its Fluency Booster adaptivity.

This interim evaluation looks at how Sumdog is used in Scottish schools and its impact on teaching and learning. The findings are based on interviews and focus groups with 9 experienced primary teachers from 9 schools, each of whom has used Sumdog for 5+ years.



## Three Key Ways Teachers Use Sumdog

Across schools, teachers consistently described three main ways they use Sumdog.

### 1. Diagnostic Assessment

Teachers use Sumdog to quickly pinpoint gaps in pupils' understanding. They highlighted benefits such as:

- Immediate feedback on pupil progress
- Identifying misconceptions at class, group, or individual level
- Supporting clear, evidence-based conversations with parents
- Informing next steps in teaching

Teachers reported that Sumdog's dashboards and visual data make it easier to see which skills need to be revisited.

### 2. Consolidation and Practice

Sumdog is widely used to reinforce classroom learning and support ongoing fluency. Teachers integrate it into lessons by:

- Using it in numeracy rotations
- Assigning targeted practice tasks linked to current learning
- Supporting recall and fluency building
- Providing adaptive practice for pupils working at different levels

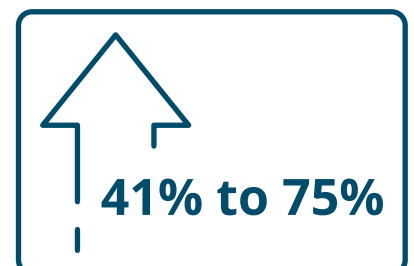
The adaptive questions allow pupils to work at an appropriate level, offering challenge without unnecessary frustration.

### 3. Engagement Through Games and Competitions

Teachers often use Sumdog's games, competitions, and rewards to motivate pupils to practise more regularly. Examples include:

- Weekly school competitions
- Inter-school contests
- Teacher-versus-pupil challenges
- Reward-based gameplay

These features encourage regular maths practice and increase participation. One teacher reported that active pupil engagement increased from 41% to 75% after introducing competitions.





## Impact on Pupils

### High Engagement and Motivation

Teachers consistently reported that pupils enjoy using Sumdog and often choose it over more traditional maths activities.

Pupils frequently:

- Ask to use Sumdog
- Engage voluntarily
- Take an active part in competitions

The games-based format can help reduce negative feelings some pupils have about maths and make practice feel more approachable.

### Improved Fluency and Confidence

Repeated practice on Sumdog helps pupils build maths fluency and confidence over time.

Teachers observed improvements in:

- Multiplication recall
- Basic number skills
- Confidence, particularly in lower-attaining pupils

The adaptive system allows pupils to progress at their own pace, supporting both those who are struggling and those who are ready for greater challenge.



## Impact on Teaching

Teachers reported that Sumdog helps them teach more efficiently and with greater focus.

### Time savings

- Automated marking
- Instant progress tracking
- Reduced need for manual assessments

### Better-informed teaching decisions

- Teachers can quickly identify pupils needing extra support
- Data helps target specific skills and plan next steps

### Curriculum alignment

- Teachers value that Sumdog matches the Scottish Curriculum, making it straightforward to integrate into existing lesson plans.

Teachers also emphasised that Sumdog is most effective when used alongside other teaching approaches, rather than as a replacement for classroom instruction.

### Inclusive for Diverse Learners

Teachers reported that Sumdog works well for a wide range of pupils, including

- Lower-attaining pupils
- Pupils with Additional Support Needs
- Pupils with English as an Additional Language (EAL)

Features such as audio support and adaptive questions help many pupils participate more independently. However, some teachers noted that:

- Competitive elements may be challenging for a small number of pupils
- Language-heavy questions can sometimes be more demanding for EAL learners

### Equity Considerations

Teachers highlighted an important equity consideration. While Sumdog can help create a more inclusive learning environment in the classroom, inequalities can appear outside school where access to technology at home is uneven.

Some schools are responding to this by offering:

- Early morning Sumdog sessions
- Additional in-school practice time



## Key Takeaways for Schools

Teachers identified several factors that help schools get the most from Sumdog.

### → Effective Implementation

Sumdog works best when schools:

- Use it regularly
- Integrate it into teaching plans
- Provide time for staff to become confident with the platform

### → Whole-School Engagement

Schools benefit when:

- Staff share strategies and examples of how they use Sumdog
- A Sumdog champion supports colleagues
- Technical infrastructure (Wi-Fi, devices) is reliable



## Overall Conclusion

Teachers in the study viewed Sumdog as a valuable classroom tool that supports both teaching and learning.

They highlighted strengths including:

- High pupil engagement
- Improved maths fluency through regular, targeted practice
- Strong diagnostic data to guide teaching
- Accessibility for diverse learners

While many pupils experience Sumdog primarily as a game, teachers reported clear benefits for engagement and skill development when it is used thoughtfully as part of a broader, school-wide numeracy approach.

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