



# School Benefit Survey Results

Part of the Rural Gigabit Connectivity (RGC) Hubs Evaluation

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- Building Digital UK (BDUK)
- Commissioned to Belmana, Hatch and Winning Moves
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Building  
Digital UK



HATCH

Belmana  
ANALYSIS FOR POLICY

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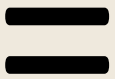
# Project Aim: Provide high speed broadband



The Hubs product focuses on **extending coverage of gigabit capable broadband** in the UK.



In addition, it aims to ensure that **broadband performance is not a constraint** in rural and hard-to-reach areas.



In schools, the investment is aimed to **equalise broadband performance** to attain standards of connectivity in remote areas comparable to the best available.



This is especially critical to **adopt educational technologies** for innovative teaching methods and improve educational outcomes.

## Survey Background: Follow-up after connection



Schools are central to the Hubs programme:  
*605 of the 1021 Hubs are schools.*



In 2020, a survey gathered pre-connection  
baseline evidence for schools upgraded via RGC.



Schools connected to high-speed broadband.



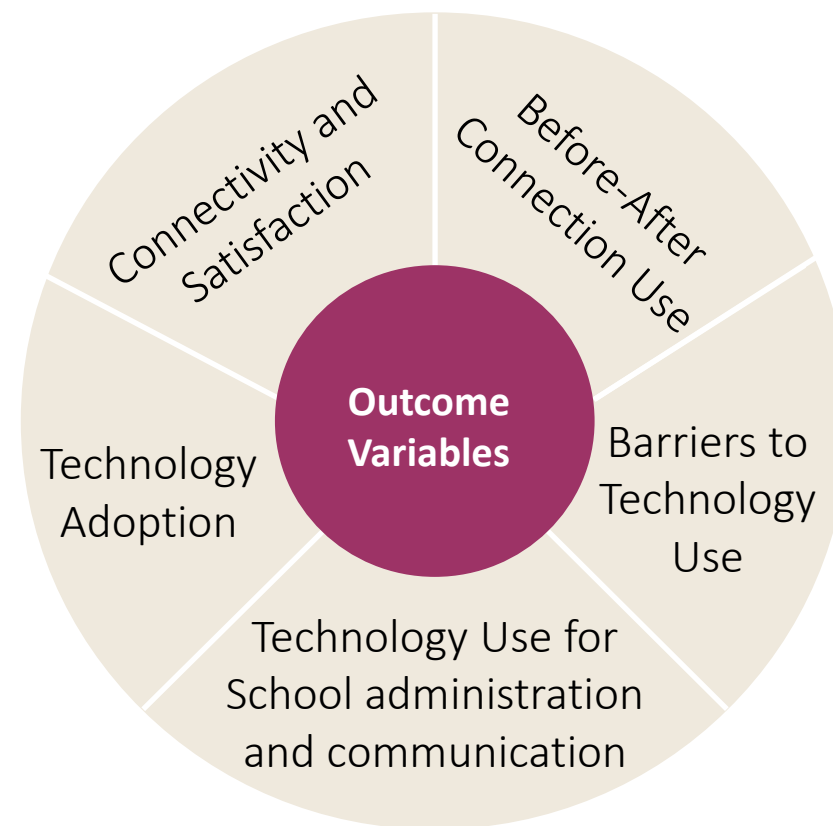
A follow-up survey of upgraded schools was  
conducted in 2021-22 to collect post-connection  
evidence about changes seen in RGC school Hubs.



*The findings from the follow up survey have  
been shared in this slide pack.*

## Survey Aim: Measure impact of Hubs

The survey aims to measure the follow-on effects  
of providing fast broadband to rural schools.



# Methodology

1



## Design

- Online survey
- Survey included multiple choice questions, Likert scales, and close and open-ended questions
- Use of questions from baseline survey and addition of a few new ones

2



## Data Collection

- Survey sent to 507 schools drawn from BDUK/DFE Hubs list
- Survey completed by school staff including headteachers and support staff
- Survey completed in October-November 2022

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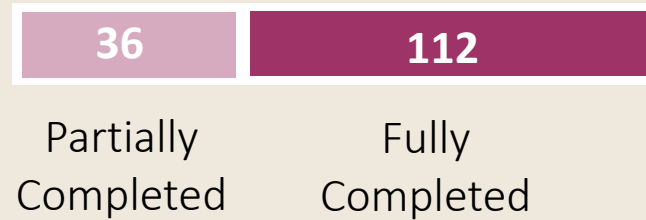


## Analysis

- Tabulation of responses
- Synthesis across textual responses
- Data Linking to schools' Unique Reference Number:
  - DFE Schools Database used to link educational statistics for academic year 2021/22
  - Connected Nations database used to link broadband speeds at different levels of geography
  - School characteristics: Variables added such as size of school, free school meal

# Profile of Schools Surveyed

148  
responses / out of  
507



The regional mix was towards the Northwest, East Midlands, Southeast and Southwest. Other regions of England, except London, were also represented.

All but two responses from schools in rural areas.

All responses were from primary schools.

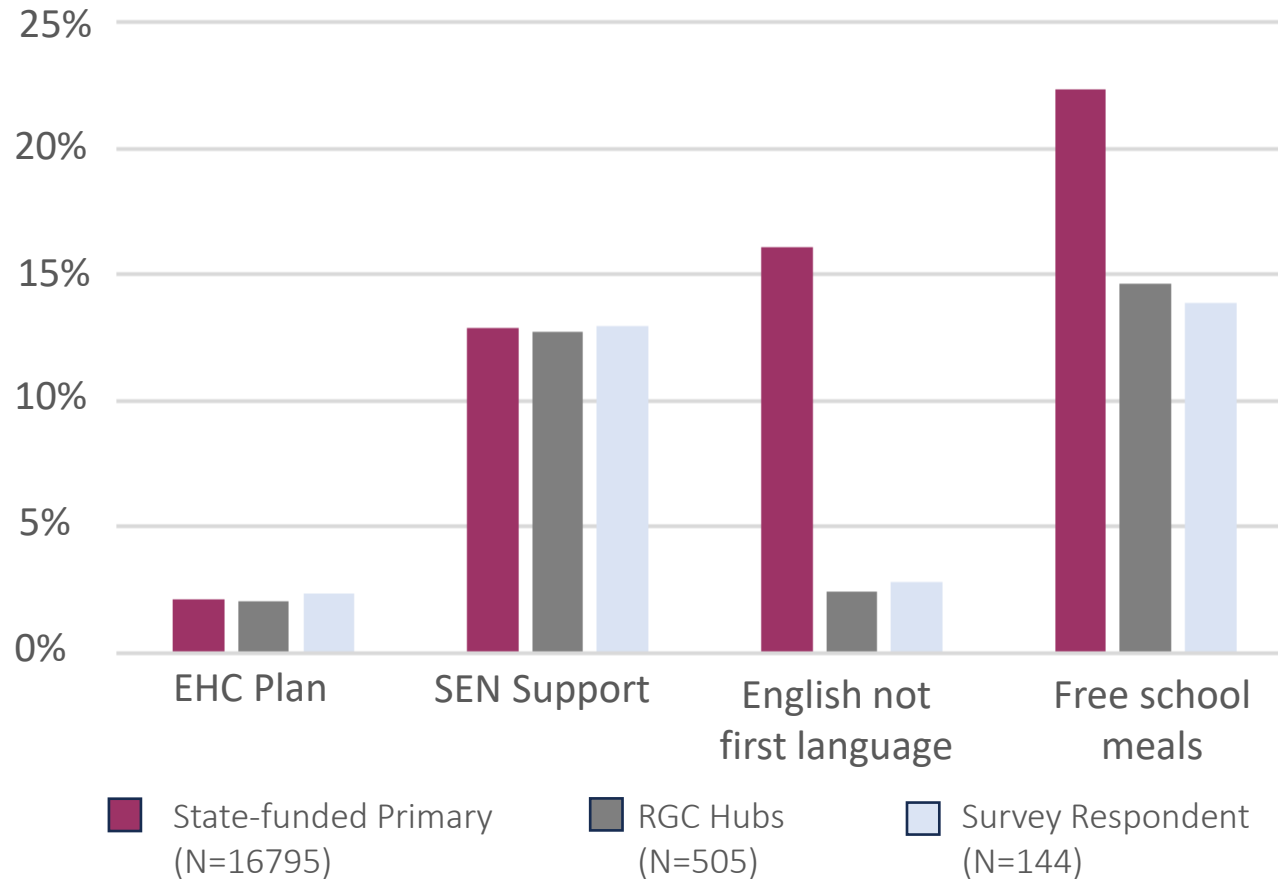
Measured  
Broadband Speed : **111**  
Mbps

**X2**  
Local Average Speed

Median  
School Size : **112**

Median Free  
School Meals : **11.6%**

# Survey sample similar to wider population



## Average School Size

Survey Sample: 139 pupils

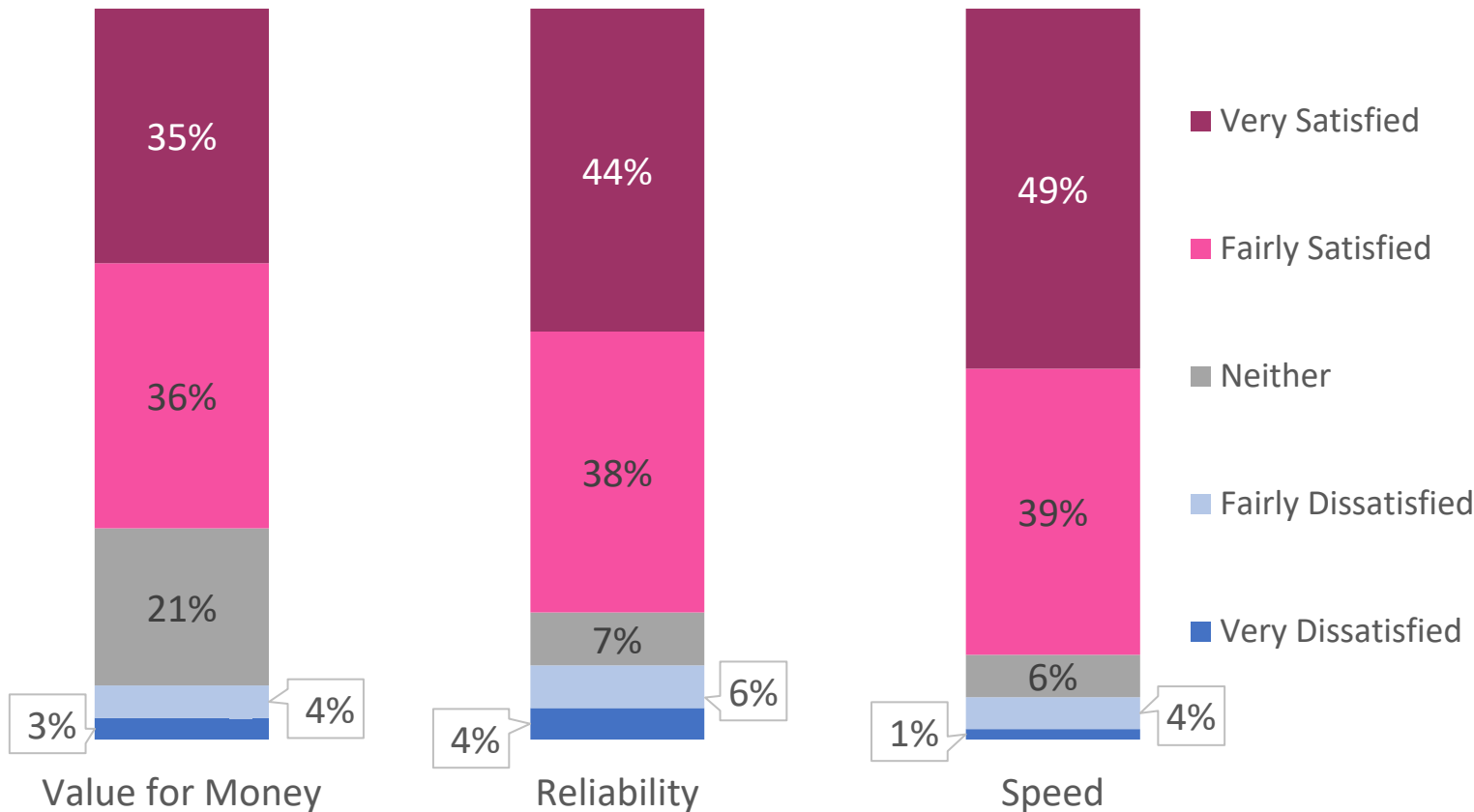
Population: 137 pupils

- The surveyed schools are representative of the RGC Hubs.
- The survey sample is also representative of all primary schools in some key aspects such as the share of children that require an education, health and care (EHC) plan and support for special educational needs (SEN).
- However, state-funded primary schools are more likely to have children whose first language is not English and who are eligible for free school meals. This difference is perhaps due to demographic characteristics of areas with hubs.

# Schools are satisfied with the Hubs connections

*The survey found high levels of satisfaction with the Hubs connections:*

*A majority of the respondents were satisfied with speed, reliability and value for money of the connection.*



**88%** of respondents are fairly or very satisfied with speed

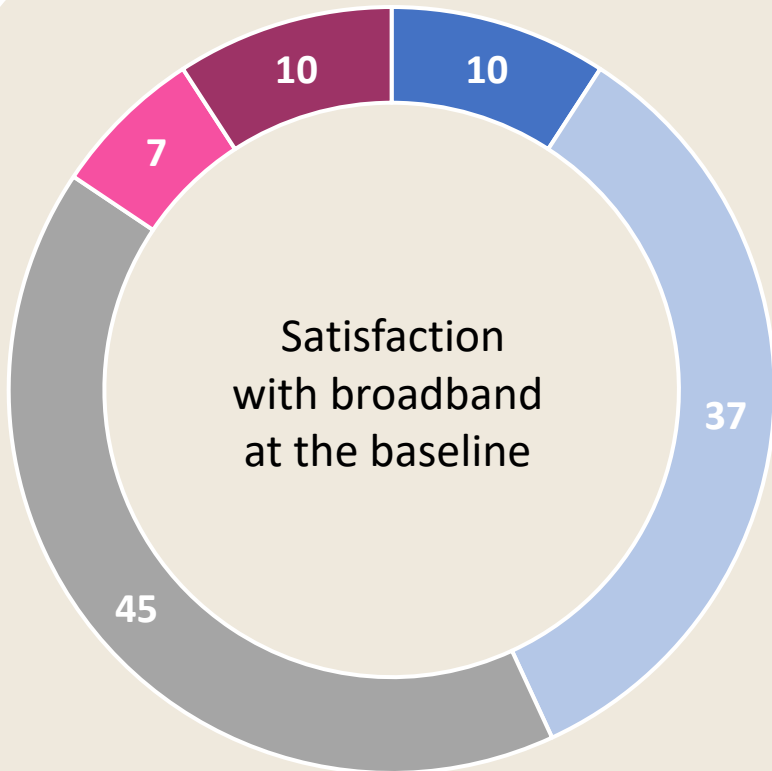
**82%** of respondents are fairly or very satisfied with reliability

**71%** of respondents are fairly or very satisfied with value for money

How satisfied would you say your school is now with the following aspects of your internet connection?  
Speed N= 138; Reliability N=135; Value for Money N=135



# Satisfaction increased compared to baseline



■ Very Poor ■ Poor ■ Okay ■ Good ■ Very Good

- In the baseline survey, nearly 41% of respondents rated their connection “okay” and approximately 43% found it either “poor” or “very poor”.
- In contrast, **88%** of respondents were **satisfied** with the speed of the broadband after the connection.

## School representatives on Hubs in the post-connection survey:

“

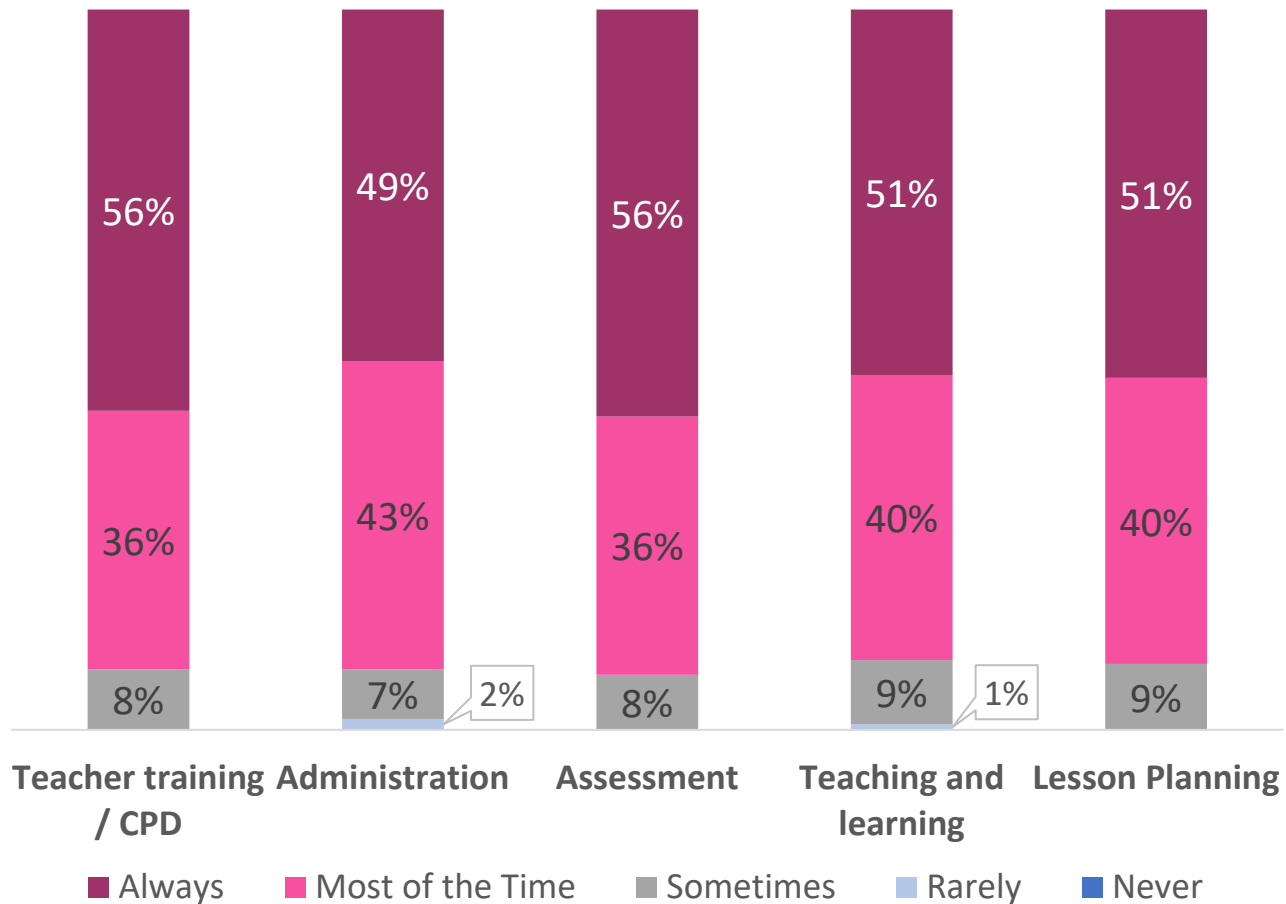
Single most important IT upgrade to the school in many years.

It has come when there are wider moves to cloud-based applications and other transformative investments, and these would have not been possible with unreliable, as well as slow, connections.”

Overall, how would you rate the performance of the current internet connection at your school? N= 109

# Connections helped meet schools' needs

*On balance, to what extent is your current internet connection meeting your school's needs?*



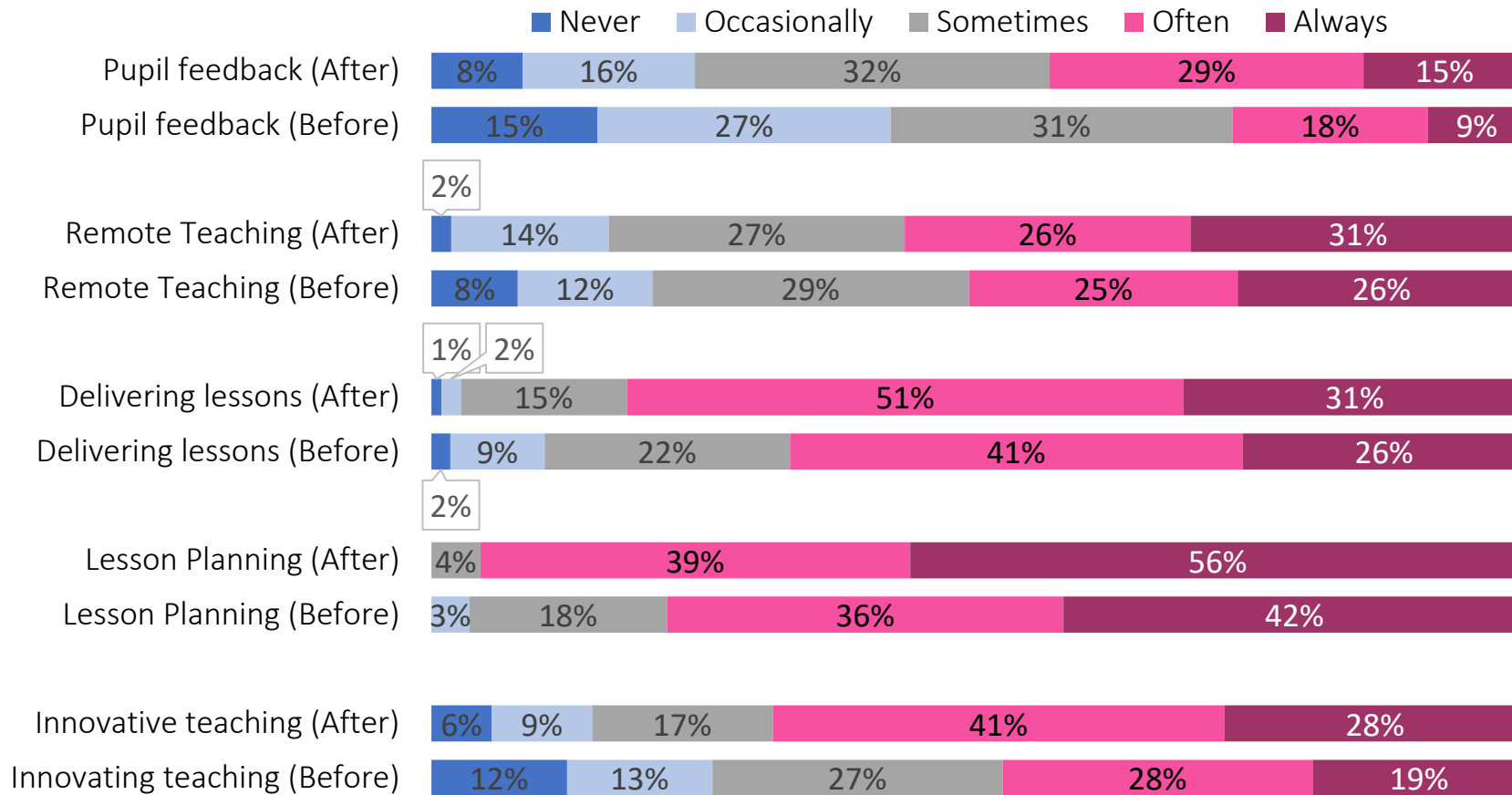
**91% of respondents** felt that the connection was meeting lesson planning and other needs most or all the time.

In 2020, before the connection, internet connection was poor or very poor in meeting schools' needs such as teacher training/CPD (46%) and, teaching and learning (46%).

In comparison, the follow-up survey found significant improvements: a majority of respondents said their upgraded connection met their schools' needs most of the time or all the time.

Teacher training N=131; Administration N=134, Assessment N=131; Teaching and Learning N=131; Lesson Planning N=131

# Connections increased teaching activities

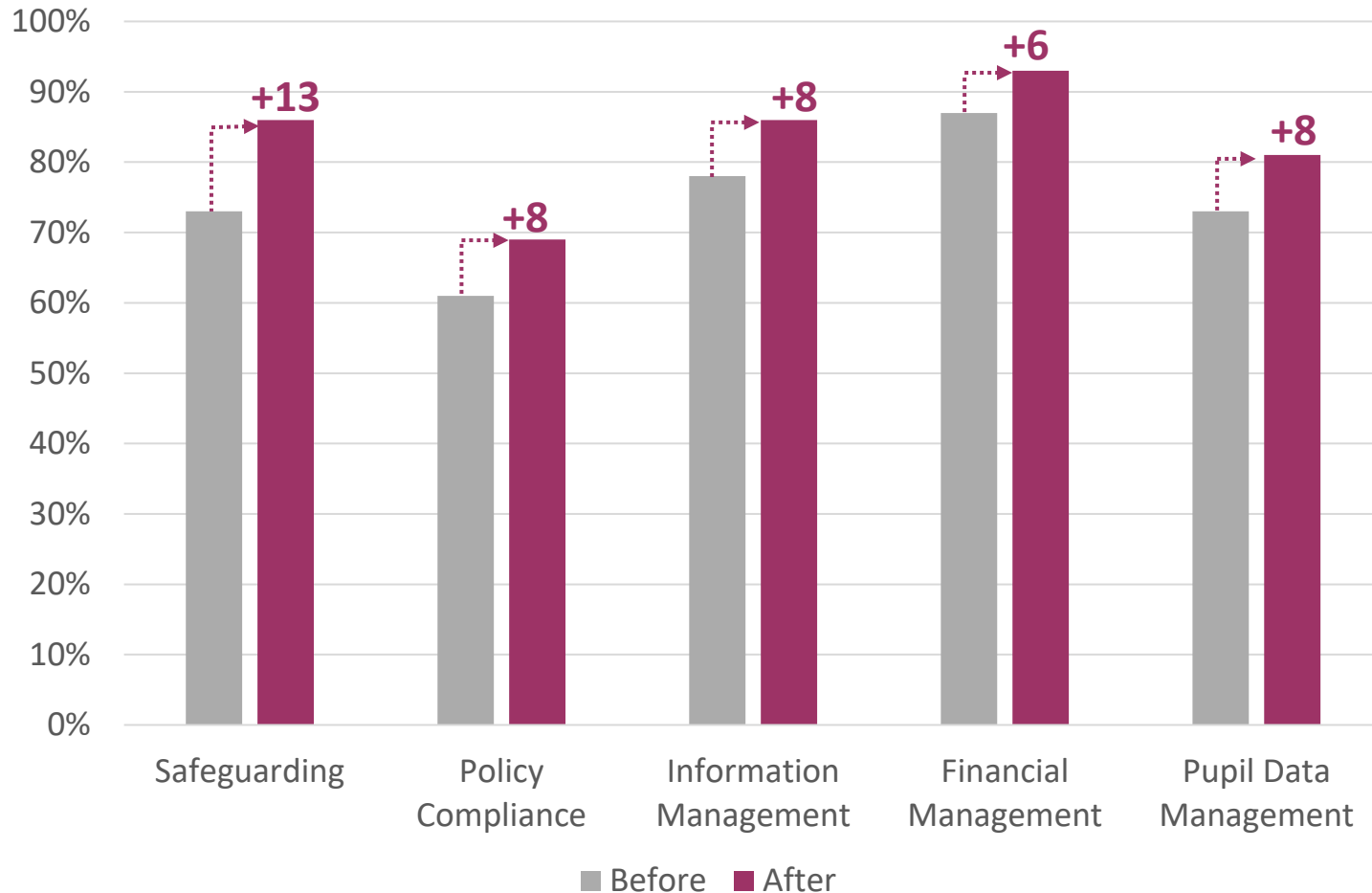


- Schools **implemented innovative teaching** practices such as blended learning.
- Schools which “always” or “often” used internet **increased** between 6-22 percentage points for all teaching activities.
- Approximately **95%** of surveyed schools are using the internet for lesson planning.

Thinking back before the upgrade/ since your upgrade, how much did you use the internet for these activities? Pupil Feedback (After, N=108; Before, N=112), Supporting remote teaching (After, N=111; Before, N=114), Delivering lessons (After, N=112; Before, N=116), Lesson planning (After, N=112; Before, N=116), Innovative teaching (After, N=109; Before, N=113)

# Internet use for administrative tasks increased

Compared to the baseline, survey respondents who were “often” or “always” using internet for the following activities increased after the connections:

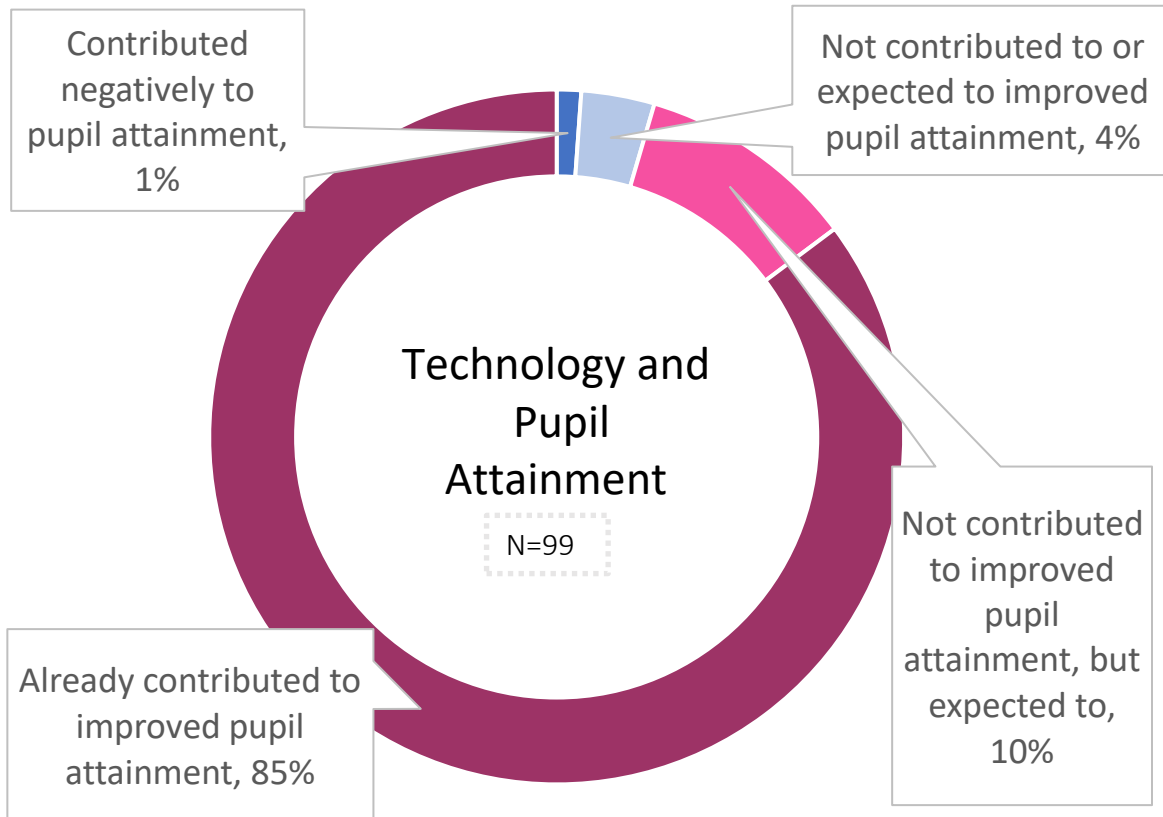


- The frequent use of internet for all administrative activities **increased** after the connection by **6-13** percentage points.
- Although a majority of schools were using the internet for administrative purposes, the maximum increase is observed in safeguarding data about the school community.

Thinking back before the upgrade/ since your upgrade, how much did you use the internet for these activities? Safeguarding (After, N=114; Before, N=118), Policy Compliance (After, N=111; Before, N=114), Information Management (After, N=102; Before, N=119), Financial Management (After, N=113; Before, N=117), Pupil Data Management (After, N=100; Before, N=102)

# Connections may help improve pupil attainment

*Which of the following statements best expresses your view on the relationship between technology and pupil attainment in school?*



**95%** of the survey respondents felt positive about technology and pupil attainment. They either believed that improved technology contributed to pupil attainment or expected it to do so in the future.

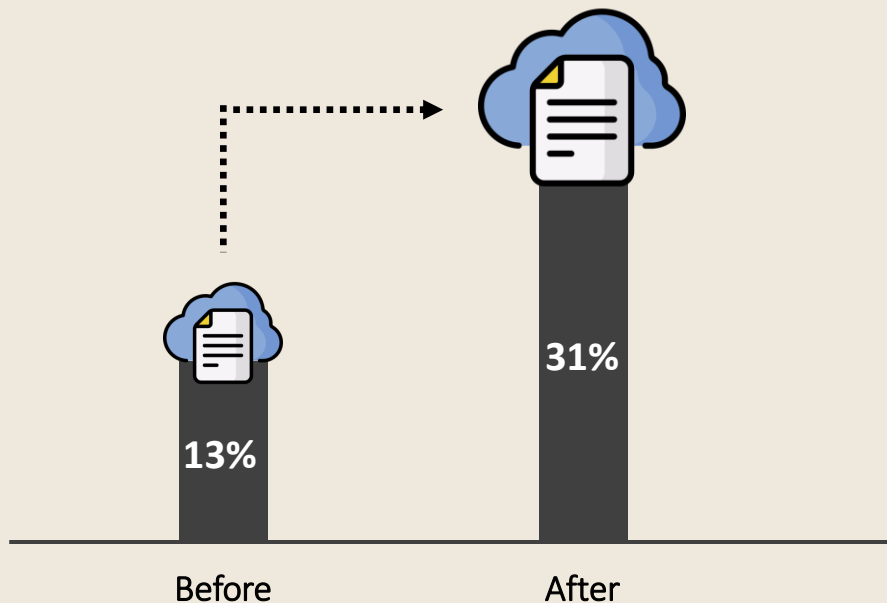
## Technology positively affecting attainment

“ The RGC connection has dramatically improved the reliability and the speed of our internet which means that we can consider different teaching and learning strategies. ”

# Cloud storage was particularly useful

*A specific technology – cloud storage of documents – highlights how schools are adopting internet technologies.*

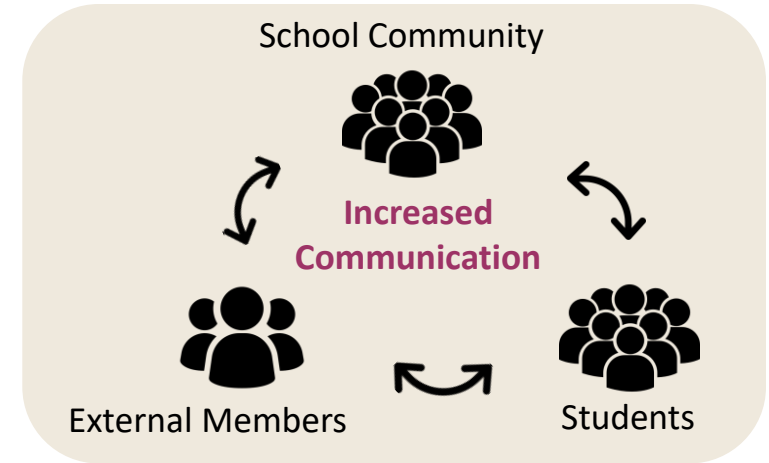
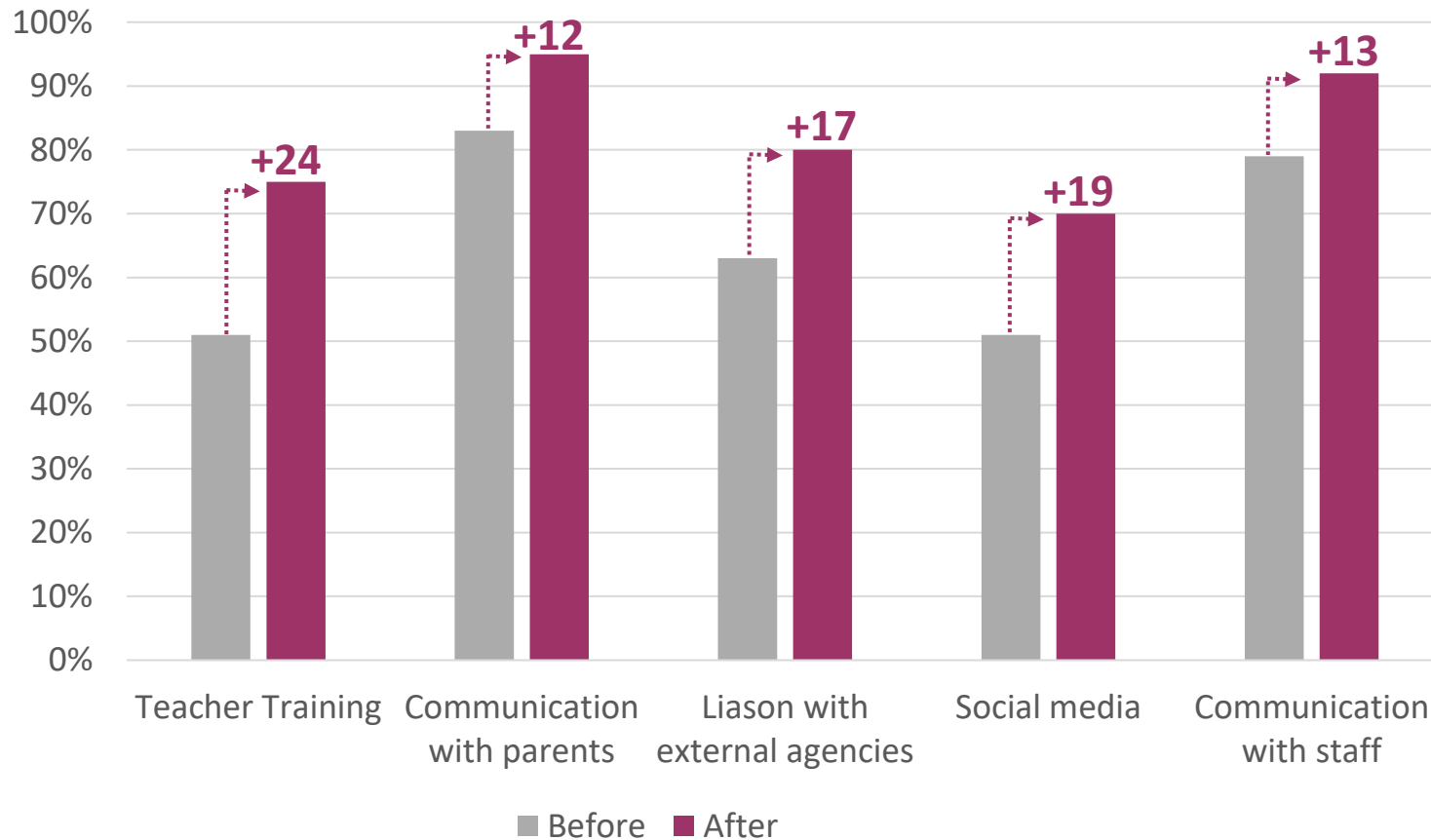
The share of respondents only using cloud storage increased from 13% (before the survey) to 31% after the upgrade.



- Cloud storage use is growing after the upgrade in the surveyed schools.
- Schools report moving to cloud-based solutions and ensuring technology is fully integrated into lessons.
- Administrative functions are also becoming 'cloud first' e.g. school information management systems. These can be used at home by both teachers and administrative staff.
- The percentage of schools only using on-premise data storage reduced from 33% in the baseline survey to 7% in the post-upgrade survey.

# Connections used for better communication

Compared to the baseline, survey respondents who were “often” or “always” using internet for the following activities increased after the connections:



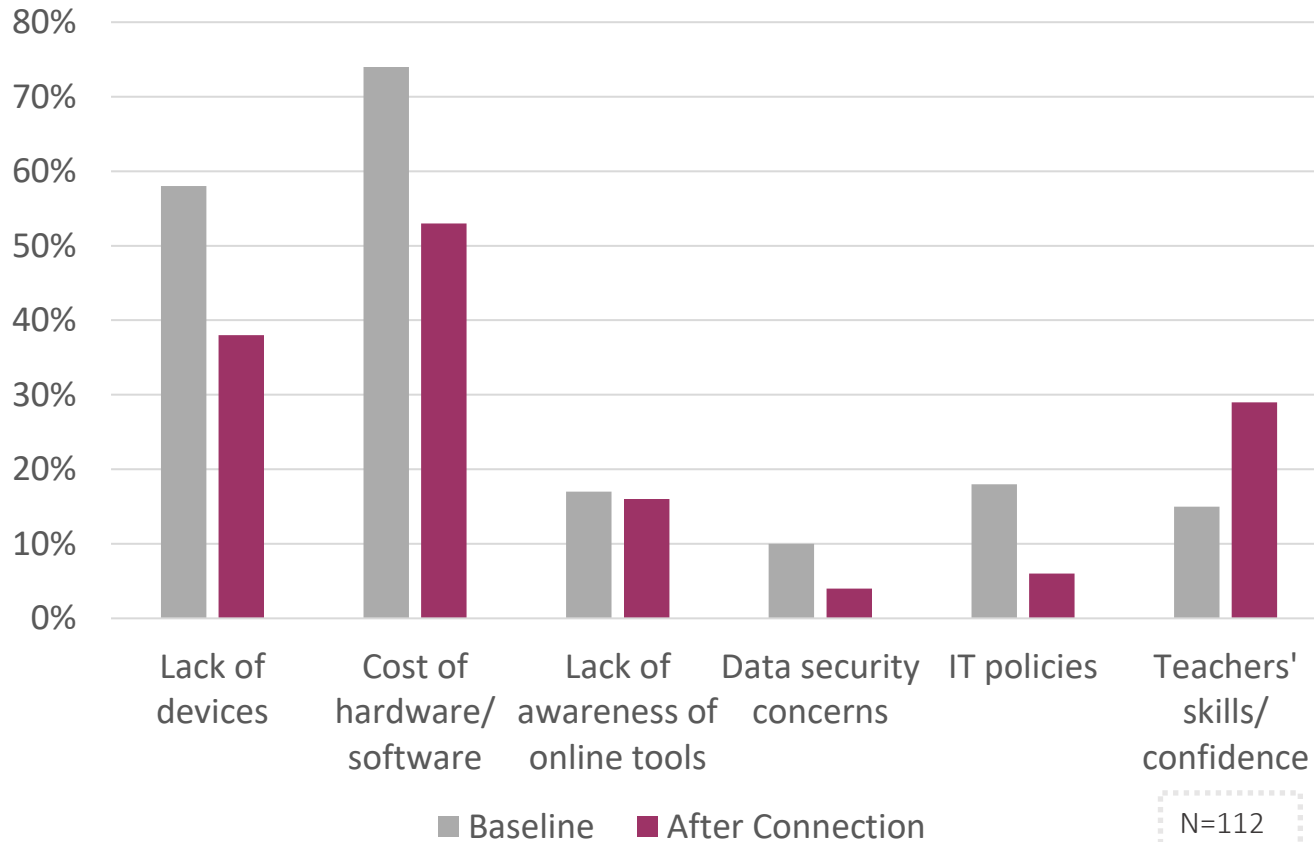
- Faster connections increased communication activities with students, the wider school community and external members.
- The use of platforms such as Teams/ Google Meet increased to allocate work to students and communicate with the wider school community.

Thinking back before the upgrade/ since your upgrade, how much did you use the internet for these activities? Teacher training (After, N=113; Before, N=116), Communication with parents (After, N=114; Before, N=118), Liason with agencies (After, N=113; Before, N=117), Social media (After, N=112; Before, N=116), Communication with staff (After, N=114; Before, N=118)

# Barriers to internet use reduced

*Most of the barriers to internet use decreased after connection than in the baseline except for teachers' confidence/skills.*

*What are the barriers to use of technology?*

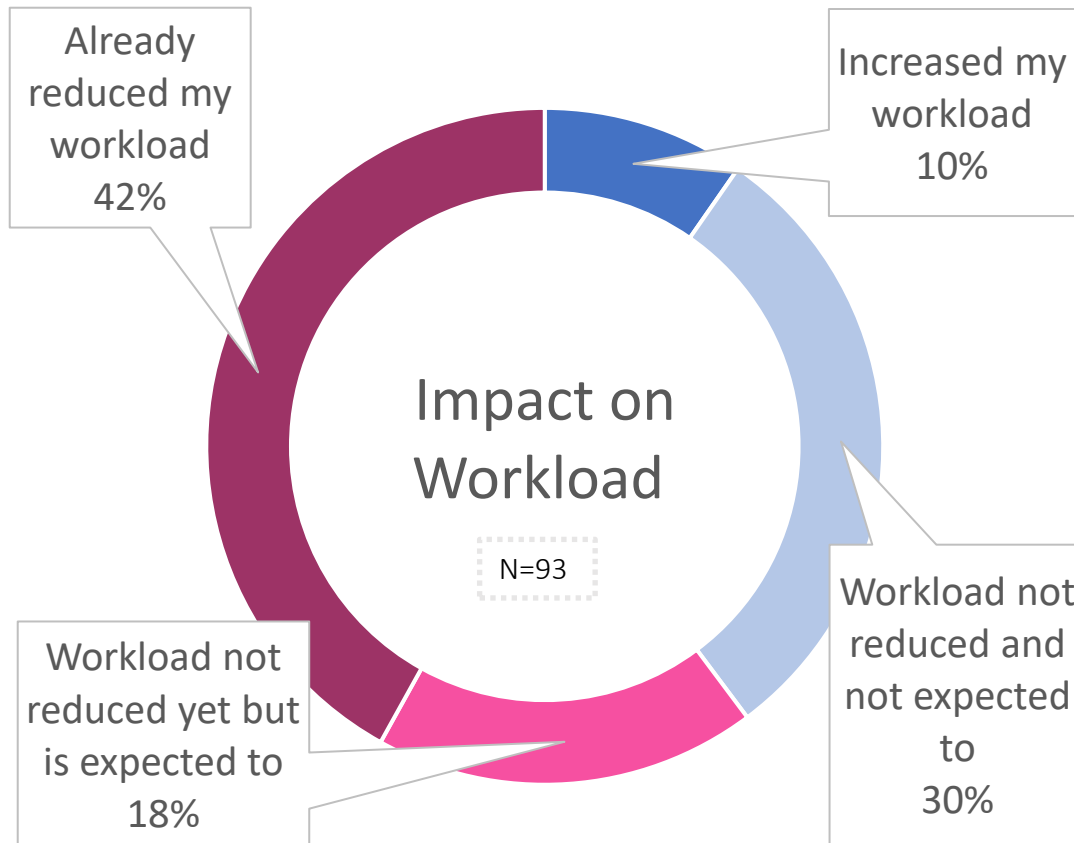


- Overall, fewer schools reported barriers to internet with maximum reduction observed in the cost of hardware/ software and lack of device.
- Baseline survey highlighted problems in accessing affordable and high-quality hardware/ software.
- Additional barriers include vulnerabilities to power outages and other considerations associated with rurality.



# Reduced workloads

*Which of the following statements best expresses your view on the relationship between technology and pupil attainment in school?*



- Workloads are reported to have reduced due to technology use after schools were connected to fast internet.



**60%** have seen workloads reduced already or are expecting it as technological changes are adopted by schools.

- In comparison, the DFE EdTech Survey 2021 found that 50% of schools had this view. The difference in percentage may be explained by the EdTech surveying schools earlier, before the upgrade.

# Conclusion: Positive impact of Hubs

**Connecting schools in rural UK led to positive outcomes which include:**



- Marked improvement in views about performance of connection.
- Increased use for school administrative activities, especially cloud storage.
- Boosted innovative teaching/ learning alongside student support activities .
- Improved communication with students, parents and other schools.
- More confidence in technology adoption and confidence among both students and teachers.

# Other evidence in support

- **Econometric evaluation** of broadband performance (measured by download speed and gigabit availability) shows improvement in internet speed of schools connected via the program more than similar schools which were not connected.
- **Qualitative evidence** from interviews with schools also highlights increase in internet speed and its positive impact on wider technology adoption for better learning and administrative changes.