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CHANNELLING AI FOR CHANGE IN THE CLASSROOM: EXPLORING THE IMPACT OF MICROSOFT READING PROGRESS ON Y5 STUDENTS

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Introduction

This study analysed the impact of Microsoft Reading Progress, a reading fluency tool powered by Artificial Intelligence (AI), in supporting Year 5 students in a primary British Curriculum School in Dubai, United Arab Emirates. The use of artificial intelligence is developing at an incredible rate in all fields, not just educational settings (Tahiru, 2021). It is therefore critical to assess which AI tools deliver on their promise of impact. As a primary classroom teacher, anecdotal observations and experience have suggested that much of the current application of AI in schools focuses on workload reduction, such as planning and assessment. There have been some studies on AI as a direct teaching tool, for example Alqahtani (2020) and Jamshidifarsani et al. (2019) highlighted that technology-assisted interventions significantly boost oral reading fluency through activities like repeated reading, error correction, and modelling. However, the research remains in its infancy, and little exists specifically on Microsoft Reading Progress. This study aims to add to this growing pool.

This intervention was conducted during Islamic sessions (when approximately half the class leave for Islamic, whilst the remaining children stay behind to go back over previously taught material or receive interventions for gaps in attainment). This meant it was not possible to trial the tool with the whole class. This limitation raises a valid ethical question: should pioneering educational technology be available to all pupils, or is it reasonable to limit it to a small group?

The educational issue addressed here is reading fluency. Ideally, every child would read daily with an adult in school and at home, however this is not feasible in a typical Year 5 classroom. As a result, children who still struggle with fluency at this point often fall behind and it can be difficult to close this particular gap. Microsoft Reading Fluency, therefore, appears to an ideal tool to remedy this; a teacher and pupil-friendly tool providing personalised feedback and increasing fluency.

Methodology

Research Questions

1. What is the impact of Microsoft Reading Progress on reading test outcomes as per the New Group Reading Test (NGRT) scores?
2. How does it affect reading fluency, including words per minute (WPM) and accuracy?
3. Does improvement in AI-tracked reading fluency correlate with improved comprehension scores?
4. What are the benefits and limitations of implementing AI in everyday classroom teaching?

Research Action

The intervention took place over three terms and focused on students who did not attend Islamic sessions. This was a sample group of mixed-ability reading children according to their NGRT scores. Children engaged with Microsoft Reading Progress two times per week during Islamic lessons. NGRT data and AI-derived fluency metrics were collected at three points: Term 1 (baseline), Term 2 (midpoint), and Term 3 (endline).

Methods

Microsoft Reading Progress was used independently by children to record themselves reading selected texts. Data from these sessions were then analysed for words per minute, accuracy, and other fluency metrics. NGRT standardised scores were used to measure reading comprehension.

Data Analysis

Overall, the group's average NGRT scores showed a slight fluctuation across terms, with a mean of 114.3 in Term 1, a minor decrease to 113.5 in Term 2, followed by an increase to 118.7 in Term 3. In contrast, average words per minute (WPM) demonstrated more consistent growth over time, rising from a mean of 103.8 in Term 1 to 119.6 in Term 2, and further increasing to 128.5 in Term 3. Accuracy, measured as the percentage of correct words, also improved steadily, starting at 79.5% in Term 1, increasing to 85.9% in Term 2, and reaching 90.1% in Term 3 (see **Table 1**).

This indicates a steady and significant increase in fluency over time. Notably, the increase in NGRT scores was more modest, suggesting that while fluency improved substantially, this did not always directly translate into progress in comprehension.

Table 1
Student Scores in NGRT, WPM, and Accuracy

Student/test type	Term 1	Term 2	Term 3
Student 1			
NGRT	93	97	94
WPM	50	78	85
Accuracy	59%	78%	81%
Student 2			
NGRT	84	94	107
WPM	96	104	97
Accuracy	94%	94%	95%
Student 3			
NGRT	106	108	109
WPM	103	142	140
Accuracy	82%	91%	92%
Student 4			
NGRT	103	108	109
WPM	67	97	110
Accuracy	50%	72%	88%
Student 5			
NGRT	117	107	108
WPM	83	129	127
Accuracy	88%	86%	95%
Student 6			
NGRT	121	125	137
WPM	129	124	134
Accuracy	86%	91%	89%
Student 7			
NGRT	130	134	138
WPM	140	131	168
Accuracy	96%	95%	97%
Student 8			
NGRT	122	94	115
WPM	109	112	156
Accuracy	86%	95%	93%
Student 9			
NGRT	121	113	135
WPM	111	130	146
Accuracy	89%	92%	98%
Student 10			
NGRT	133	135	135
WPM	114	130	138
Accuracy	92%	92%	94%
Student 11			
NGRT	116	118	122
WPM	108	138	103
Accuracy	80%	78%	83%
Student 12			
NGRT	120	119	126
WPM	123	122	127
Accuracy	89%	83%	88%
Student 13			
NGRT	112	107	110
WPM	115	119	124
Accuracy	43%	71%	78%

Progress Over Time
Over time, overall group data shows a consistent increase in both WPM and accuracy. The average NGRT scores also improved but with more variability. For example:

- Student 1's NGRT score increased marginally (93 → 97 → 94), while his accuracy jumped from 59% to 81%, and WPM increased by 35.
- Student 4 made dramatic progress in accuracy (50% → 88%) and WPM (67 → 110), with a more modest NGRT increase (103 → 109).
- Student 2, however, improved in NGRT from 84 to 107, but his WPM fluctuated and slightly decreased by Term 3.

This highlights that while fluency often improved, comprehension progress was not guaranteed and depended on broader literacy development.

Changes in WPM throughout Terms 1-3 compared to changes in NGRT scores suggests a slight positive relationship. Students who gained more in fluency also tended to gain in comprehension, though there were some anomalies to this. This could suggest that, despite some outliers, improvement in reading fluency using Microsoft Reading Progress is associated with improved reading test outcomes.

Most students showed improvement in at least two of the three measures (NGRT, WPM, accuracy) over the three-term intervention. For example:

- Student 13 made the most progress in accuracy (43% → 78%) and showed corresponding growth in NGRT (112 → 110).
- Student 5 slightly declined in NGRT (117 → 108) despite high accuracy and WPM gains, highlighting the complex relationship between fluency and comprehension.

Compared to expected Year 5 progress benchmarks (usually 6–9 NGRT points annually), over half of the students exceeded or met this expectation. However, a formal control group to validate this was lacking.

Conclusion

The findings suggest that Microsoft Reading Progress has a positive impact on fluency. However, the tool is not a magic bullet. Although, in many cases, it can be seen to also support reading comprehension (as evidenced in improvements in NGRT scores), its efficacy in this area is limited. Whilst it can support one-to-one reading practice when adult time is constrained, it does not in any way substitute guided discussions, or comprehension strategies led by teachers and its vocabulary instruction is limited.

Some limitations of the study included:

- Small sample size: The study was limited to 13 pupils due to timetable constraints.
- Access issues: Not all students had consistent access to iPads or a quiet environment, impacting the frequency and quality of usage.
- Variability in texts: Reading Progress does not always allow for curriculum-linked texts, limiting contextual learning.

Despite these constraints, the research demonstrated that Microsoft Reading Progress is a worthwhile supplementary tool. The key is that it is delivered in partnership with quality classroom teaching and parental support at home. Its value could be increased if linked explicitly to class texts, vocabulary lists, and phonics/spelling patterns, which in this study, it was not.

Reflections

This project significantly altered how I view AI in the classroom. Previously, I considered AI largely as a tool for reducing teacher workload, primarily used in planning and assessment. However, this study demonstrated that AI could serve as an active pedagogical aid, significantly supporting teachers to manage differentiation and engage pupils. The tool's suitability for Guided Reading sessions was a particular strength. It provided a clear, purposeful task for pupils working independently whilst the teacher focused on small-group instruction. If refined, such tools could significantly support the issue of reading inequality in classrooms with limited time and staffing.

References

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