The Effectiveness of computer-aided tutoring on Primary school-aged reading attainment

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Abstract

This research looked at the positive impact of computer-aided tutoring on reading attainment measured by reading age. Tutoring resource demand in the UK has grown since the COVID-19 pandemic and the government's launch of the National Tutoring Programme, a scheme for schools to receive subsidised tutoring for pupils. Offering a tutoring resource via a computer would allow for greater flexibility and increased usage by learners, and if it proves to be effective, be a real benefit for schools and pupils on the scheme and beyond.

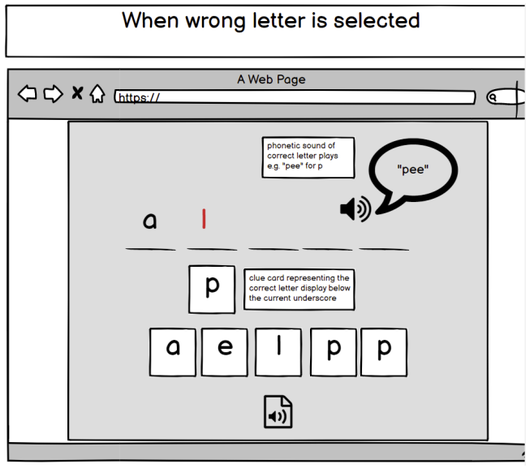
Aims and Objectives

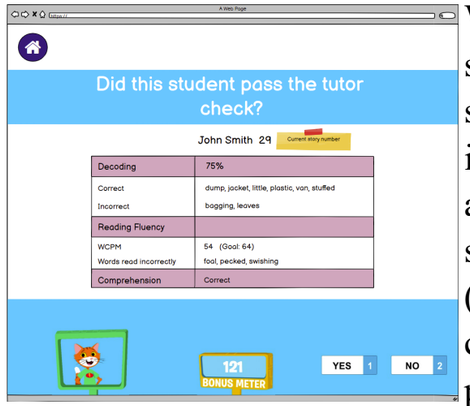
The objective of this study is to understand whether computer-aided tutoring is an effective solution for teaching reading and literacy skills to primary school children.

Aims for the objective are to create an application which provides the learning content in a fun and interactive environment, invite schools to participate in the study by having their pupils use the programme over 4 months and collect data from the application on the performance of the participants to calculate their reading age.

Application Design

Design for this application involved creating storyboards to understand how the learning activities would work. These storyboards would be created based on the acceptance criteria in the requirement specification document, and then used as reference by the development team.

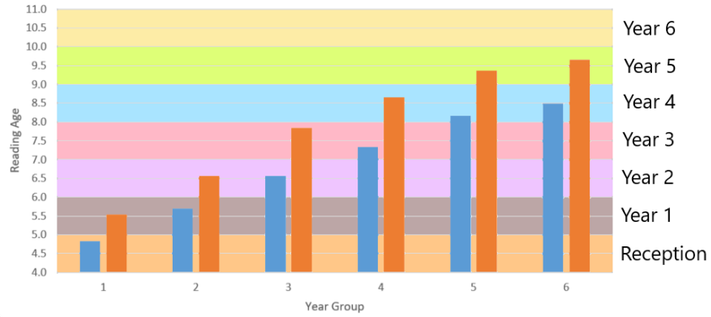




When the user has shown a level of skill in each activity in a stage, they are then to take a supervised test (called a tutor check) in order to progress to the next level. This score is what is used to calculate the pupil's reading age.

Research Findings

Results show the average improvement in reading age across year groups is 1 year and 3 months. Attainment was even across gender. Amount of progress was greater for older pupils (e.g. years 5 & 6) than for pupils in earlier year groups. Two thirds of pupils used the application 30 times or less during the study.



Conclusions and Suggestions

Summarising the findings show that computer-aided tutoring is effective on increasing attainment in reading for pupils, and that the more it is used the greater the improvement is.

Further research could take into account the pupil's actual age for comparison, or to conduct the study over a whole academic year. Using a control group could also validate the evidence further.

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