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## Enhancing English Reading Comprehension by Integrating Direct Access to Digital Materials and Scaffolded Questionings in Paper Prints

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### ABSTRACT

This paper presents an augmented paper-based reading system which incorporated digital materials and the reading strategy of scaffolded questioning into printed materials to enhance students' English reading comprehension. QR codes were printed on paper prints to provide direct access to digital resources and scaffolded questions; smartphones were used to scan the QR codes and display digital learning materials. The results showed that the reading strategy of scaffolded questioning significantly improved students' English reading comprehension, but direct access to digital materials using QR codes did not. Implications of the study shed light on the future development of the system.

### INDEX TERMS

- **IEEE Terms**

Computers , Education , Joining processes , Materials , Mobile communication , Problem-solving , Smart phones

- **INSPEC**

- **Controlled Indexing**

courseware , electronic publishing , mobile computing

- **Non Controlled Indexing**

English reading comprehension , QR codes , augmented paper based reading system , digital learning materials , digital materials , digital resources , paper prints , printed materials , scaffolded questioning , smartphones

- **Author Keywords**

QR codes , augmented paper-based reading , reading comprehension , scaffolded questioning

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