

Designing TEL products for poor comprehenders: evidences from the evaluation of TERENCE

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Abstract. Developing the capabilities to read and comprehend texts is fundamental for the development of children and for their full participation in society. The FP7 European project TERENCE faced the problem of poor text comprehenders and created the first adaptive learning system for text comprehension for primary school children. The paper, after a brief introduction to the research problem behind TERENCE and an overview of the system, reports on the findings of four round of evaluations aimed at assessing both the usability and the psycho-pedagogical effectiveness of the system, and report them as hints useful for researchers and designers.

Keywords: Technology enhanced learning, psycho-pedagogical effectiveness, usability, poor comprehension

1 Introduction

For all children, developing the capabilities to comprehend written texts is key to their development as young adults. From the age of 7–8 until the age of 11, children develop as independent readers. Nowadays, more and more children in that age range turn out to be poor (text) comprehenders: they demonstrate difficulties in deep text comprehension, such as integrating distant information in texts. The comprehension process may be stimulated by educational intervention carried out by primary school educators; experiments show that inference-making questions centred on a number of identified skills, together with adequate visual aids, are pedagogically effective in fostering deep comprehension of stories. While traditionally the psycho-pedagogical intervention is carried out by primary school educators by means of paper-based learning material, the advent of Learning Management Systems opened new possibility with respect to the support to both teachers and learners.

Generally speaking, a Learning Management System (LMS) is a suite of functionalities designed to deliver, track, report on and manage learning content, learners' progress and learners' interactions, applying to very simple course management systems, or highly complex enterprise-wide, distributed environments.
