**ReaderBench: The Learning Companion**

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**LSE, Univ. Grenoble Alpes**

The LSE aims at analyzing educational processes in several contexts (classrooms, vocational, professional) for modeling purposes. Some LSE members are working on ways ICT support and analyze learning and teaching processes (e.g., computer-based assessment, novel tools acceptance, teacher cognition).

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**RACAI, Univ. “Politehnica”, Bucharest**

The k-Teams laboratory is driven by theoretical and applicative research centered on the development of collaborative software to support and assess participation in virtual teams. Our inter-disciplinary approach is grounded in NLP, with strong connections to educational sciences, cognitive psychology, and philosophy.

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**ReaderBench, a Multi-Language Learning Companion**

*ReaderBench* is a fully functional automated software framework, designed to be an educational helper for students, teachers, and tutors. The system makes uses of text-mining techniques based on advanced natural language processing and machine learning algorithms to design and deliver summative and formative assessments using multiple data sets (e.g., textual materials, behavior tracks, self-explanations).

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**Textual Complexity Analysis**

*ReaderBench* can assess *textual complexity* at several levels (semantics, morphology, surface factors integrated by support vector machines/DFA).

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**Participation Evaluation**

*ReaderBench* can assess *participant’s involvement* and contributions in CSCL contexts.

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**Comprehension Prediction**

*ReaderBench* can analyse the *cognitive strategies* during understanding a text.

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**Topic Analysis**

*ReaderBench* can analyse the *occurrences of topics* in discussions and texts.

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**Uses in Education**

Forum and chat discussions analysis  
Reading comprehension strategies analysis  
Textual complexity analysis  
Text materials comparison

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