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Project Title:	Application of Case Based Reasoning (CBR) in Lesson Plan Construction
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Project Description:

This research contributes to the current research for an effective way to facilitate teachers in customising lesson plans by developing a CBR system for lesson plans construction. This is important as appropriate lesson plans are crucial to accommodate students' differences in various aspects. The context of this research is set in the Malaysian education system.

School teachers in Malaysia are still preparing their lesson plans independently and manually. Although there are vast efforts in integrating technology in teaching, the way lesson plans are prepared remains unchanged. At the moment, experience is transferred manually with many limitations and constraints. A critical issue that needs to be addressed is how the emergence of technology might facilitate teachers in lesson planning of the overall teaching without repeating the same lesson plan along with the same success and failure.

While teachers are facing so many problems in preparing lesson plans, and limitations of the computer supported lesson plans via online or standalone systems, Case Based Reasoning (CBR) might offer solutions to this problem. Case Based Reasoning (CBR) which has the capability to find relevant cases that solved similar problems to the current problem offers a great potential solution to lesson preparation through its cycle which contains four main activities; retrieve, reuse, revise and retain. With appropriate computer support, dynamic planning could take place and effective lesson plans could be constructed for the benefit of teachers, students, as well as school administrators.

In this research a CBR system will be developed as a means of exploring the issues surrounding lesson plans preparation in the Malaysian context. As part of this research, important representation issues as to how lesson plans can be represented in a CBR system will be considered. In addition, reasoning process by teachers is explored as both

knowledge representation and reasoning are essential to understand the nature of intelligence and cognition to creating systems that exhibit human-like abilities.