A ”Frequently Asked Questions” management system that supports voting, built for student evaluation and optimization purposes

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We have built a system for managing FAQ lists in a special way, to be used in an educational environment. Our system supports an explicit voting mechanism to let users assess the relative importance of any posted question. Our main goals are: 1) to optimise the student-teacher interaction; 2) to evaluate the effectiveness of learning.

As in a standard FAQ management system, in our FAQ sharing system students can contribute to a FAQ collection on the subject taught. They can post questions and answers, but then they can also vote both types of items (questions for interest, answers for correctness).

This way we can optimise the time spent in answering to their doubts, because we only answer questions THEY consider important.

The interesting part is also the evaluation part. Since we also let them try to answer questions and vote for answers, we can study their knowledge progress on their guesses. We can calculate a student performance in learning by giving values to his ”actions” (answers/votes). We can give values to actions by studying the behaviour of the whole group (e.g. a very difficult question will have more value if correctly answered and less value if wrongly answered).

We are also studying the possibility to use some semantic distance algorithm to collapse questions/answers too near to be treated as different. This ”collapsing feature” could be used as another evaluation technique: students posting questions/answers that do not ”augment” the database must be discouraged.

The implementation is very simple: a ”weighed” stack of questions, in which every item gains weight by being voted. A web server interface (built around Java Servlets) serves as access point from users. Users must register themselves, since every posting is marked with the ID of the poster.