Why do I choose Weblearn for assessment?

Weblearn is another quiz/test tool like Black board quiz/test manager, developed at RMIT. It has got some features that makes it very useful in some circumstances. In this short paper, the differences are highlighted so that you would be able to make an informed choice.

Structure

Black board uses pools to organise questions. If you want to develop multiple questions with the aim of choosing one for a single outcome, you will end up having many pools. For this to work appropriately, the user has to take care in naming the pools so that the random blocks of questions can be delivered at appropriate difficulty level to all students in a class. (ie making individual question papers for each of the students in the class.)

Image of the Pools in Black Board

But in the WebLearn the questions are ordered at two different levels. One of them is called Module. It could be a topic or group of learning outcomes and the other level is called learning objectives level. This is individual outcomes. Each question is identified as m.o.q where m indicates the module number and o indicate the objective number and q indicates the question number. Choosing questions for individualised papers becomes easier. All the questions within the same objective or outcome carries the same difficulty hence any one could be drawn. Also Quiz question bank that is used for formative tests are kept separate from test quiz bank that is used for summative tests. This prevents students from printing all the questions and getting the answers by submitting many times. Once they have the
answers they can cheat the system for a real test if the question pool is not different. That is clearly and cleverly organised within Web Learn. In Black Board one has to be very conscious about these factors.

Image of the structure of the question bank in Web Learn

Selecting random questions
If the quiz/test system allows one to select random questions from a pool of questions, then the chance of students copying is reduced and ensures the student to do the work him/her self or get some one to
do the tasks for them. If one is to choose questions randomly, then the questions must chosen from must have the same difficulty. So every pool created must have the same difficulty if questions are to be randomly chosen. Structure becomes important in this case and weblearn offers this as a base.

**Progressively increasing level of difficulty**

If the quiz/test system allows one to progress through known to unknown or simple to the most difficult task, it assists in the students development or learning. As the quiz bank is structured properly, this is easy to achieve within Weblearn. Weblearn allows for chaining of quiz/tests to increase the level of difficulty on completing the previous level of difficulty. Black Board allows for this through adaptive learning however the Quiz/Test generation is not as easy as in Weblearn.

**Numeric type questions**

Numeric type questions require the system to interpret the data submitted against some tolerances. Both Black board formula based questions and Weblearn numeric type essentially does the same. Black Board numeric type does not allow for evaluation of formulae. Again structure plays an important part in selecting random questions.

**Multiple answers to a single question**

Weblearn has another numeric type called Maple type. Under this type, the answers are verified by Maple. If we have a numeric question with several intermediate answers for partial marking, then only Weblearn can handle that.

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**Question 12.4.1 - Maple Dynamic**

**Question body**

The capital cost of an energy efficiency measure is $1460. The annual savings is $290. Determine the present worth of the project (Answer to nearest dollar) for discount rate of 12% and Life of the project of 9 yrs.

1. Your answer for Present Worth $ \( PV \)

Determine the annual worth of the project (Answer to nearest $0.10)

2. Your answer for Annual Worth $ \( AW \)

**Question Answer**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ans1min=83.9; Ans1max=86.1; Ans2min=15.89; Ans2max=16.11; (l(aSPY)=Ans1min) and l(aSPY)=Ans1max) and l(aSPY)=Ans2min) and l(aSPY)=Ans2max);</td>
<td>1 (Correct)</td>
</tr>
</tbody>
</table>

**Feedback**

<table>
<thead>
<tr>
<th>Response Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct</td>
<td>Correct</td>
</tr>
<tr>
<td>Incorrect</td>
<td>Wrong</td>
</tr>
</tbody>
</table>
**Multiple Choice Questions**

Multiple choice questions are available in both Black Board and Weblearn but Weblearn allows a choice or choices to be fixed at the location where it is entered. For example, you do not want ‘all of the above’ appearing as the first choice.

Almost all the different questions types are implemented but the implementation may differ a little. For example a hot spot question type in Black Board is not available as a drag and drop or click on the spot type but it is implemented by a drop down box and choosing the answers based on the image.

**Randomly generated values for questions**

When giving numerical questions, it can be generated according to some rules. Both Black Board and Weblearn implemented this type. This allows for very large number of possibilities. In Black Board, you generate a number of questions and then choose one out of them. This limits the number of possibilities. Weblearn generates all the questions on the fly when presenting the paper. Another feature of WebLearn is that it retains the paper until the student has submitted his/her answers. Black Board changes the values if closed and opened again. This means that the student has to complete the quiz/test at one sitting.

**Using values generated for one question in the following ones**

To my knowledge Weblearn is the only quiz/test tool that can carry the variables (randomly generated values) from one question to the other or use the answer submitted to one question in the questions that follow it. If a student made a mistake and provided the answer, and then he used that wrong answer in the following computations, we must allow for some partial marking. Weblearn allows for that to happen. Black board does not have any facility to accomplish this.

**How about partial marking**

Weblearn allows you to partially mark a question. It allows for one question with different ranges or multiple answers to a single question. It is partially implemented in Black Board and does not match the versatility that is available within Weblearn. This lends itself to serious design type problems to be deployed. ANSWERS and SUBANSWERS tags implemented within Weblearn allows for this flexibility.

**Paper cycle**

Paper cycle tests allows teachers to hand out some individualised question papers to students and ask them to mark on a special marking sheet. These are then collated, scanned and emailed to Weblearn using our Fuji-Xerox photocopiers for Weblearn to mark it. It will also email their results to them. This is good for in lecture/tutorial quiz to gauge the students performance and to adjust the classes according to the population. This is being trialled and should be available in 2010.

**Conclusion**

All in all there are lots of reasons why you would choose Weblearn as your quiz/test tool. Talk to your ADG representative if interested.