

EDMONTON PUBLIC SCHOOLS

October 11, 2005

TO: Board of Trustees

FROM: A. McBeath, Superintendent of Schools

SUBJECT: Participation in Alberta Education's Computer Adaptive Assessment Pilot 2005 – 2007

ORIGINATOR: T. Parker, Executive Director

RESOURCE
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INFORMATION

Introduction

The purpose of this report is to provide information to the Board of Trustees regarding district participation in Alberta Education's Computer Adaptive Assessment (CAA) pilot project.

Computer Adaptive Assessment is an online form of assessment in which test items are presented in a sequence that is dependent on the correctness of a student's response to the preceding item. Students begin the test with a question of average difficulty and then the program automatically provides harder or easier questions depending on whether the student is answering correctly or incorrectly. This "adaptation" of questions continues until the program can determine an accurate level of achievement. The questions on the tests will be based on Alberta curriculum outcomes and will be written and reviewed by Alberta teachers and educators.

It is the belief of the administration that participation in the CAA pilot project will allow the district to have significant influence over the development and implementation of all aspects of Computer Adaptive Assessments. Alberta Education plans to have Computer Adaptive Assessment available to all Alberta schools in the fall of 2007.

District Participation

Participation in the Computer Adaptive Assessment pilot entails a two-year commitment. As a district, we will involve 20, 000 students in grades 3 – 9 in the pilot. The participation of high school students will occur only if an appropriate number of high school questions are developed. Participation in this pilot ensures that our district will have membership on the provincial steering committee, and provide input and feedback in the development of Computer Adaptive Assessment.

Benefits of Computer Adaptive Assessment

Following is a list of proposed benefits of using Computer Adaptive Assessments for teachers and students. The intent of CAA is to supplement the current assessments already being done in schools.

1. Testing is more efficient because students have to do fewer items on each test to get an accurate score.
2. Test taking frustration will be reduced because students are not faced with questions that are too easy or too hard.
3. Teachers and students have access to test marks immediately.
4. Results from tests can be used to help teachers decide what might need to be reinforced with one student or with an entire class.
5. Tests can be given at anytime. This could help in tracking student progress more regularly.
6. An increase in standardization of marks across the district because all teachers will have access to all the same curriculum based questions.
7. Teachers will spend less time writing tests and will have more time for performance based assessments such as projects, performances and labs.

Background

The development of Computer Adaptive Assessment is in response to the Alberta Commission on Learning's Recommendation 59 regarding access to high quality classroom assessment materials at the school level.

On September 9, 2005, representatives of school districts across Alberta attended a presentation by Alberta Education that provided an outline of the CAA project and requested participation to pilot the project in 2005 and 2006. It is the plan of Alberta Education to have provincial access to Computer Adaptive Assessments by the fall of 2007 at a predicted cost of \$6.40 per student.

On September 14, 2005, a report outlining the benefits, timelines for implementation and expectations for teachers and students regarding participation in the pilot project, was taken to Superintendent's Council for discussion and feedback. On September 20, 2005, the superintendent approved the recommendation to participate in the CAA pilot.

Implementation Timelines and Expectations

The Implementation Timeline of the pilot project entails a two-year commitment on the part of the district (Appendix I). In year one of the pilot, 2005 – 2006, schools will have access to test items for grades 3 – 9 in language arts and math (February 2006). At that time, the program will only allow for 'non-adaptive' questions, as the goals of year one are to gather feedback on the quality of questions provided and to test the usability of the program. Both teachers and students will be providing feedback regarding the questions that have been developed. The minimum participation for students in year one is to complete one assessment online. During year one of the pilot, there is no per student cost to the district.

Year two of the pilot, 2006 – 2007, will see a major expansion of accessibility and usability of the program. Adaptive assessments for grades 1 to 9 English language arts and math will be available. Science and social studies non-adaptive assessments will be implemented for feedback and usability of the program. A minimum requirement of one assessment per student is also required for year two, but teachers will be able to access the program on demand. A charge of \$2.00 per student registered in the pilot for year two, equates to an approximate projected cost to the district of \$40,000 (\$2.00 X 20,000 students).

As the majority of schools in our district currently have both the hardware and software required to access CAA, minimal technology upgrades will be required at the school level.

Benefits of Participation in the Pilot

Participation in the pilot of the CAA project has numerous benefits for our district. District participation allows for our teachers and students to provide direct feedback about the operation of CAA and the quality of assessments it provides. Participation ensures that district staff will be members on the Provincial Steering Committee. Membership on this committee assures influence over aspects of the development, implementation and evaluation of CAA across the province.

Summary

Research shows that using accurate, timely assessment data is a key to improving the achievement of all students. In the last few years, our district has worked toward the embedding the practice of looking at assessment data as a way to improve instruction. CAA has the potential to provide up to date, accurate, curriculum based assessments for teachers without having to create and recreate their own tests and exams. This data can then be used to make decisions about what should be reinforced; re-taught, or has been successfully learned by the students.

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Appendix I: Computer Adaptive Assessment Pilot Implementation Schedule

Computer Adaptive Assessment Pilot Implementation Schedule
2005 - 2006

Year 1 (2005-2006)*

- *Non-adaptive assessments* offered for English Language Arts and Mathematics at grades 3 to 9 (February 2006).
- Dependant on the results of consultations (post-January 2006) *non-adaptive assessments* offered for English Language Arts and Mathematics at grades 1 and 2.

*Assessments in this year will essentially be field-tests but will be administered, scored electronically on the CAA online interface.

Student Participation	Teacher Participation
<ul style="list-style-type: none"> • Minimum one assessment per student registered with the pilot 	<ul style="list-style-type: none"> • Opportunity to assess students on demand at a unit level or at an overall course level. • Provide feedback, surveys etc., regarding assessment system.

Reports:

- Teachers, schools and jurisdictions have access to the assessments.
- Diagnostic reports to be designed through the steering committee.

Costs:

- No charge if one of the first 150,000 registered by September 23.
- Student participation above 150,000 cost \$6.40 per year.

Support to Teachers:

- Online tutorials
- Detailed online instructions
- Onsite support
(Suggested little preparation time required: 10 minutes for teachers to use the scheduling tools and reporting features, 5 minutes for students to learn the interface)

Information taken from data provided by Alberta Education, System Improvement and Reporting, September 9, 2005

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Computer Adaptive Assessment Pilot Implementation Schedule
2005 - 2006

Year 2 (2006-2007)

- *Adaptive assessment* offered for English Language Arts and Mathematics at grades 1 to 9 (available early in year 2).
- *Non-adaptive assessments* offered for Science and Social Studies at grades 1 to 9 (beginning early in year 2).

Student Participation	Teacher Participation
<ul style="list-style-type: none"> • Minimum one assessment per student registered with the pilot. 	<ul style="list-style-type: none"> • Opportunity to assess students on demand at a unit level or at an overall course level. • Unlimited access to the assessments that have been developed.

Changes from Pilot Year:

- System will become computer adaptive for courses where sufficient information was obtained.
- Interface and reports will be enhanced and modified from feedback in year one.
- Increased courses available.
- Cost \$2.00 per students for unlimited use of CAA

Year 3 (2007-2008)

- Early in year 3 *non-adaptive assessments* offered for English Language Arts, Mathematics, Science, and Social Studies in grades 10 to 12.
- *Adaptive assessments* offered for all core courses (English Language Arts, Mathematics, Science, and Social Studies) at grades 1 through 9.
- Late in year 3 *adaptive assessments* offered for English Language Arts, Mathematics, Science, and Social Studies in grades 10 to 12.

Changes:

- Optional involvement at \$6.40 per student

Information taken from data provided by Alberta Education, System Improvement and Reporting, Sept. 9, 2005

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