

Computer Adaptive Assessment (CAA) in Alberta
Questions and Answers – October 2006

What was accomplished in CAA in 2005/2006? *NEW*

Forty school districts, accounting for almost 100,000 students, have committed to CAA. Field-testing began in Mathematics 3-9, English Language Arts 3, 6, and 9, and Pure Mathematics 10-20-30. Over 20,000 students participated in field-testing in the months of May and June 2006.

What will happen in the 2006/07 school year in the CAA initiative? *NEW*

Field-testing

Teachers may begin field-testing computer-based assessments in English Language Arts (Gr. 3-9), Science (Gr. 3-9), Mathematics (Gr. 3-9, Pure Mathematics 10-20-30), and Social Studies (Gr.3, 4, 6, 7, and 9).

It is important that jurisdictions and schools who registered and participated in Year 1 re-register their students, teachers and principals in September 2006. Castle Rock will make this registration available on-line and will provide support to those who need it.

Unit Level Field-testing

Field-tests are now organized into unit and year-end tests, and outcomes from the various Programs of Study are organized into units/topics/clusters. This provides teachers with meaningful assessment data and ensures that the computer-based assessments are relevant to classroom instruction.

Core-group Field-testing Component

While all students involved in CAA will continue to have access to all field tests, data from a core-group will be used to examine each question for the computer adaptive assessments. In order to collect enough statistical data during field-testing, the core group of about 2,500 students will be needed for each course/subject (Gr.3-12). Each class in the core-group will commit to take every unit test in a particular subject(s). Unit tests may be taken in any sequence, in accordance to instructional needs.

What changes in the design of CAA were made in response to feedback from jurisdiction or school staff? *NEW*

Castle Rock Research incorporated many changes in response to suggestions made by teachers and other participating staff. These changes include:

- Adding a feature so that non-registered users can gain access to explore the system,
- A new school authority report entitled “First-Time Logins” is available so that districts have more information regarding district, teacher and student access of the system,
- Improved capability for multiple log-ins by schools and jurisdictions,
- Increased technical assistance, as well as the creation of user-guides to improve ease of accessing the system,
- Working to solve problems with both connectivity and issues related to schools that do not meet the minimum technical requirements, or use Mac, rather than IBM compatible computers, and
- A new feature was added for teachers so they may better monitor the progress of their students while using the CAA system.

Can schools and jurisdictions still register to participate in CAA? Who should I contact if I am interested in participating? *NEW*

Schools and jurisdictions may still register in CAA. If you would like your school to be involved in CAA and your district is already participating, please contact your district for more information. Interested districts who are not already registered should contact Dennis Belyk, Executive Director, Learner Assessment at (780) 427-0010 (toll-free by first dialing 310-0000). Dennis can also be contacted via e-mail at Dennis.Belyk@gov.ab.ca.

What is Computer Adaptive Assessment?

Computer Adaptive Assessment (CAA) is a computerized assessment tool that immediately ‘adapts’ or tailors the difficulty of each test to the individual student. CAA requires a smaller number of questions than is needed for a paper-and-pencil test and is therefore an efficient means of measuring a student’s achievement level.

What is the purpose of the Computer Adaptive Assessment initiative?

The CAA initiative is intended to provide an optional assessment tool for classroom teachers to assist them in better understanding each student’s progress. It will be one of many tools a teacher will have available for use in the classroom. Its use can support the instructional planning, along with tools such as teacher-developed assessments, commercial assessment/diagnostic tools, and other tests. CAA also supports the infusion of technology as a teacher support in the classroom.

Who is involved in the CAA initiative?

Alberta teachers will have a critical role in participating in item development, field testing, and reviewing items. CAA is being developed by Alberta Education with an Alberta-based company (Castle Rock Research Corporation) that is committed to providing a quality resource to the field. Castle Rock is responsible for developing, field-testing and maintaining test items for the initiative.

What subjects are included in the CAA initiative?

CAA items are being developed for the four core subject areas: English language arts, mathematics, science, and social studies in grades 3 to 12.

Are the CAA materials aligned with the Alberta Programs of Study?

Yes, all items used in the CAA project will be aligned with the Alberta Programs of Study and will be correlated with the appropriate general and specific learner outcomes.

How can teachers use the CAA system to help them identify curricular areas in planning for instruction?

The Alberta CAA system will provide assessments at curricular strand/topic levels as well as at the overall course level. As such, a teacher could have students take the assessment for a specific strand/topic after having completed instruction for that unit. At the end of a course, teachers can have students take the CAA to determine which curricular areas students have mastered and which areas require further attention. Each item within the CAA item banks will be tied directly to the Alberta Programs of Study, and therefore will be associated with learning outcomes.

Who has access to student information?

Student results will only be available to the student and teacher. As with any assessment, the teacher may share the information with others (i.e. parents). Schools and school authorities will be provided with summary reports showing participation in the initiative. CAA results will not be reported provincially.

What technology will be required at the school level in order to participate in the CAA initiative?

The Alberta CAA system will be an online application; as such, the basic technology requirements of the school level will be the availability of computers with Internet connections. The system will be designed to function in technology environments of moderate bandwidth with basic computer hardware. The CAA system will be accessed by students via web browser. Alberta Education will work with the service provider and schools to address technology challenges, should they arise.

What are the benefits of using CAA?

- CAA serves as a tool for ongoing curriculum specific assessment, to identify student areas of strength and areas for improvement and to monitor their progress over time.
- Testing efficiency is enhanced by computer adaptive assessment, since fewer items are typically required for measurement accuracy.
- In most cases the administration time for each test is reduced.
- Testing on demand is possible.
- Immediate test scoring and reporting becomes possible.
- Reports will be structured to aid teachers in planning instruction that meets individual student needs.

How will the CAA initiative be funded?

Support for the first 150,000 participants in years 1-3 has been secured by Alberta Education. A student is considered to be a participant after he/she has written one test. If the number of participants approaches 150,000, districts will be notified before costs are incurred. Jurisdictions will provide support through involvement of staff and students.

What is the timeline for the implementation of the CAA initiative?

- Year 1 – May 2006
 - Computer-based assessments (field-tests) for mathematics (Grades 3-9), English language arts (Grades 3, 6, and 9), and Pure Mathematics 10-20-30
- Year 2 – Sept. 2006
 - Computer-based assessments (field-tests) in English language arts (Grades 4, 5, 7, and 8), science and social studies (Grades 3-9), Mathematics (Grades 4, 5, 7, 8) and Pure Mathematics 10-20-30. Other selected courses may be available.
 - Computer adaptive assessment or continued computer-based assessments (field-tests) in English Language arts and mathematics (Grades 3, 6, and 9).
- Year 3
 - Computer-based assessments (field-tests) for four core subjects (Grades 3-12) and computer adaptive assessments in selected subjects.
 - By the end of year 3, computer-adaptive assessments for four core subjects (Grades 3-12).

What will be the role of the Steering Committee in the upcoming school year?

The committee will continue to provide Castle Rock with consultation and feedback regarding the development of all aspects of the CAA initiative. The Steering Committee will still be chaired by a district superintendent, with members from rural and urban jurisdictions, the University of Alberta, Alberta Education, and Castle Rock Research. Key contacts are:

CAA Steering Committee:

- Mr. Greg Thomas, Superintendent, Wild Rose School Division (Chair)
- Alberta Education:
- Mr. Dennis Belyk, Executive Director, Learner Assessment
- Castle Rock Research Corporation:
- Mr. Gautam Rao, President
 - Mr. Mun Prasad, Vice President

How can I learn more about CAA?

Further information about CAA is available on the Castle Rock website at www.castlerockresearch.com/caa.