

BCeSIS: What's wrong with this picture?

by Larry Kuehn

The BC enterprise, Student Information System (BCeSIS), is a centralized data system initiated by the Ministry of Education to collect and process data on all students. Currently it is being used in districts with about a third of the students in the province.

Teachers in districts using BCeSIS have reported many problems. Teachers in other districts who may only have heard about the difficulties can be thankful their district was not one that took the lead in implementing the program.

The ministry says that the purpose of BCeSIS is management of student performance information and "data-driven decision making." It has several components, from demographic and attendance data to holding all student assignment marks and issuing report cards and eventually letting parents get access to the information on their child, online.

BCeSIS has serious performance problems

The program has had serious performance problems at key times. Last June, it slowed down considerably, probably because of heavy demand when secondary schools were doing scheduling for the next year. That was a warning of things to come when the demand is greatest in September.

The system shut down completely over two days in late September, just when school districts had to provide information to the ministry on students' registrations and staffing levels. The company with the contract to provide the service, Fujitsu, had greatly underestimated the demand.

Several factors were at work here. One is that the technical people do not know the practices and demands of the education system. Another is that this is the first time this program has been used for a provincial jurisdiction, so there is no other experience to fall back on to gauge the level of demand.

Still another problem is that the ministry selected a completely centralized system over the view of teachers on the selection committee that they should have chosen another type of software and a distributed system.

Many teachers who have been putting their marks in the program have experienced very high degrees of frustration. One teacher required to use the system has written a two-page list of the problems with the grade-book program. Another reports an experience of marks having been changed. "The word *frustrated* doesn't even get close to the way I'm feeling right now," he said.

The general advice from many who have tried the BCeSIS grade book is, don't use it. It is possible to maintain marks in another program and to upload only the overall marks, work habits, and comments for report cards.

Teachers using the attendance program report it taking much longer to enter attendance than systems used in the past. One teacher timed it at 16 minutes more a day taken out of instructional time—a loss of over 40 hours in a year.

Despite all the problems, in October the ministry issued a press release announcing "British Columbia's new system for streamlining student records and improving achievement has received national recognition." BCeSIS won a bronze medal for "innovation and excellence."

The technology contractor for BCeSIS is just as out of touch with reality. It did an internal review after the system collapsed at the end of September. Fujitsu's conclusion about its service: "The Ministry and School Districts are being serviced by a world-class operation."

The real costs of BCeSIS

When school boards signed on to the program, they were told the cost would be \$10 a student per year. In fact, the costs, as one ministry official told BCTF Executive Committee member Jill McCaffery, are closer to \$140 a student per year, which would be about \$80 million a year if all students were included.

The significant costs include local hardware and technical support, training and local staffing to carry out all the functions necessary to implement the system and get it running. In addition, the

complexity of the system has forced most districts to hire external consultants. This compares to the \$3.50 per student that the province provided as a one-time textbook grant.

To give an idea of costs with a system like this, Fujitsu projects that \$1.3 million is required just to implement a test database so that new developments can be tested before they are put online and create unanticipated problems.

BCeSIS as a surveillance and control system

The aim of this centralized database can be seen in the recent appointment of a "Joint Committee on Curriculum, Assessment and Report." This is a joint ministry/district committee to look at processes for managing student achievement information for elementary and middle schools. As is typical with this project, the committee is selected by the BCeSIS Service Management Council, rather than being open to teachers to apply or having the BCTF appoint representatives as is typically done for IRPs.

The ministry claims that the data in BCeSIS belongs to the school districts and can only be taken by the ministry with agreement by the district. However, already with distributed learning schools, districts are required to upload "achievement data for all active students" on five specified dates during the year. Districts can either agree to let the ministry take the data from BCeSIS directly, or the district can extract the data itself, and then upload it to the ministry. Any claims of the system being "voluntary" on the part of districts is straight obfuscation.

BCeSIS may not meet the ministry's own FOIPA issues

It was recently discovered that there is a data field in BCeSIS for teacher social insurance numbers. Some districts have 'uploaded' this information to the system. It now turns out that at the end of the year the teacher SIN number becomes part of the student record and travels with the student as they change schools within BC and other places.

BCeSIS and Sector Data Warehouse

Although the promise of BCeSIS was to provide data that districts could use for decision making, it turns out that BCeSIS is woefully inadequate for this task. BCeSIS does not store historical data such as attendance or school marks over time. For example, if a district wanted to measure progress of a group of students, such as looking at Aboriginal transition rates, BCeSIS is unable to perform this task. This is why the ministry is not commissioning to develop, build, and maintain a Sector Data Warehouse at this time. The cost of this project is not yet known.

BCeSIS was not designed for all the objectives that the ministry was seeking to meet and a lot more money will be thrown at it if it is to meet those objectives. Much of the cost of BCeSIS is downloaded onto school districts as they hire staff and consultants to make up for the problems with BCeSIS.

Education policies are imbedded in BCeSIS

Langdon Winner says that a social order is programmed into a technology and use of that technology then shapes the social order. This is the most serious problem with BCeSIS. A system of control and a conception of education is imbedded and will shape education in the future. That conception is based on standardization, data-based decision making, and centralization disguised as decentralization.

Larry Kuehn is director of the BCTF's Research and Technology Division.

BCeSIS: \$80 million and more of frustration

By Larry Kuehn

The promise of the software company that created BCeSIS is "Creating more time for teaching." Unfortunately, the experience of most teachers forced to use the program is just the opposite.

BCeSIS is the centralized-data project initiated by the Ministry of Education to collect data on all the nearly 600,000 students in BC public and private schools. The software for BCeSIS was bought from AAL, an Ontario corporation whose main client base is in the US.

The US focus of its sales is indicated in its website promotion that eSIS is "designed to fully support the *No Child Left Behind Act* and data-driven decision-making." (www.aalsolutions.com).

A recent survey of teachers in one BC school district about their experiences with BCeSIS produced reports of a litany of problems. Sometimes difficulties are acceptable—if they contribute to the quality of education and produce a richer experience for students. Unfortunately, according to the surveyed teachers, BCeSIS produces few positive returns.

While the survey was conducted in one school district only, the results seem to reflect the experiences of teachers around the province.

Kevin Ault is a Chilliwack teacher who decided to try to find out if colleagues in his district were facing the same frustrations he was with BCeSIS. He developed a survey as a university project.

If BCeSIS actually provided more time for teaching, most teachers would probably put up with some of the frustrations of learning the new program—clunky software and interminable waits watching the hourglass. They might think that \$80 million in provincial expenditure and many millions more to come was worth it—if the program meant they had more time with students.

However, that is not the experience reported in the survey. When asked whether “Using BCeSIS gives me more time for my students,” 80% disagreed or strongly disagreed. Only 3% agreed and 1% strongly agreed that they had more time for their students.

Similarly, 74% disagreed that “BCeSIS has made a significant contribution to student education in BC.” Only 8% agreed.

The frustration of teachers was reflected in the answer to whether BCeSIS has increased work stress; 61% said it had increased stress moderately or significantly, only 14% said not at all.

One of the survey respondents described the impact of BCeSIS on teachers and students: “Teachers arrive at school with a certain number of kilojoules of energy. If they have to spend all this energy just trying to enter some marks or perform their responsibilities to this poorly performing software, this will directly subtract from the amount of energy they have for their students.”

Some users did find some positive elements to the program, particularly to what it was supposed to do. Having a single, provincial database should make it easier to transfer information when students change schools. Because it is web-based, it should be possible to access it from home as well as school.

For most, however, the common complaint is that the system is not user-friendly and is slow, slow, slow, especially when lots of people are using the system. This is particularly a problem during times of high demand, such as report-card time.

One respondent described providing such a bad program to teachers as “highly disrespectful of our profession as we are so pressed for time.” The teacher then said, “I think if this happened to our premier’s computer, he would soon upgrade the server.”

Program crashes are also a pain, often requiring re-entry of information.

One coping mechanism for some teachers has been to use another marks program to keep daily records, then just entering report-card marks in BCeSIS.

Kevin Ault carried out the survey to provide information to the BCTF and to the Ministry of Education. He hopes that the message will get through that BCeSIS is an impediment to education and that something has to be done to fix the problems.

Has spending \$80 million on BCeSIS—and growing—a good way to use taxpayer money? Only 1% of those surveyed said, “I strongly agree.”

Do you have a story about BCeSIS that you think the BCTF should know about? If so, write to lkuehn@bctf.ca.

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Position Paper On BCeSIS

BCeSIS is the acronym for British Columbia enterprise Student Information [System](#). So if you teach in BC you will be meeting this new [software](#).

I believe that a central database for schools is an excellent idea. However the implementation of BCeSIS brings up many questions and the topic certainly generates heated debate. From listening to the complaints, I get the feeling that BCeSIS was not designed with teachers in mind. [Data collection](#) and the collection of student information is really the mission of the software and adapting it to [fit](#) the needs of a teacher is an after thought. The software came from the USA and they are big on collecting data!

Why was BCeSIS introduced before the many glitches were ironed out? Why were the many recommendations of the committee of teachers ignored. The implementation phase has been painful to say the least.

Teachers report that the software is seriously out of date, difficult to manage and that it is too expensive for what you get. Yes, you can make it [work](#), but it is a step backwards costing a lot more than was budgeted for. Is cost no longer an issue once a price is negotiated? The charges have escalated and the ministry is passing this cost on to school districts.

The recommendation to the Select Standing Committee on [Finance](#) and Government Services from the British Columbia Teachers' Federation - October 2006

"If a decision is made to continue with BCeSIS, the full total cost of ownership should be added to school district [budgets](#)."

so that this system does not continue to suck resources from the delivery of service to students."

If you purchase into a system, surely it should work right away -and not take a year to fix glitches and frustrate educators.

The Grade book seems to be giving teachers the most problems - is a functioning grade book not regarded as an essential tool? Grades just happen to be important for teachers to

document - it is a ministry requirement so this should have been investigated and if it was not up to par the software should have been dumped or the designers made to sort it out immediately.

A teacher commented "I hear there are up-grades coming but I'll wait to see them before I try BCeSIS again. Another [math teacher_](#)

at our school used BCsSIS this past year but will probably use InteGrade next year. Yes you can make it work, but it is a step backwards."

A note from your teachers

A report from the BCTF to the members of the legislative assembly

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BCeSIS (British Columbia enterprise Student Information System)

High cost—Low performance

"BCeSIS is definitely a top-down system designed for the ministry to collect data rather than a system developed to meet the needs of students, staff, and school boards."

"A manual attendance routine, performed five times a day with paper, pencil, and a human brain takes me about four minutes for the whole day. A smooth day with BCeSIS requires sixteen minutes of time to perform same attendance routine for my five classes."

"The program is slow, badly designed for classroom use, unreliable, and does not seem to be improving even though we are now two months into using it."

These are quotes from teachers currently using BCeSIS. Unfortunately, they are experiences shared widely among BC teachers. BCeSIS, a centralized data system initiated by the Ministry of Education to collect and process data on all students, is sadly flagging. In its short life, BCeSIS has gained a reputation as sluggish and expensive.

Teaching is a complex human enterprise. Students are at its centre and classrooms are places of learning, magical moments, and hard work. Contrast this with the market-driven learning environment BCeSIS envisions for students: a teacher behind a computer screen recording student attendance, marks, and personal information. Teachers want to preserve a healthy educational environment and not sacrifice students to increased bureaucracy and social control.

Real costs to school districts

"All 60 districts...have recognized the system's value and decided to participate." (BCeSIS Stakeholder Relations Plan, September 2006) Strong-armed would probably be a more accurate description of why all 60 school districts have jumped on board. Districts were told that if they did not join BCeSIS they would have to develop their own system and ensure it does the same thing and is compatible with BCeSIS.

Instead of the \$10 a person per year originally announced, costs have skyrocketed to \$140 a student per year according to one ministry official. Moreover, although this is a Ministry of Education initiative, most of the costs fall on school districts. Staff have been deployed to BCeSIS. Many school districts have had to purchase higher-end computers for each teacher. Consultants, trainers, technical support, and conference fees have all added to the costs. To implement BCeSIS, capital costs alone will set the Vancouver School Board back \$1,723,902 between now and 2008, plus \$500,000 student fees per year.

Estimated spending on BCeSIS is \$80 million per year. Ironically, if we only had \$84 million returned to school districts, we would be at the 2001–02 level of funding when significantly more resources went directly into the classroom. Precious resources have been taken from our students to fund this project.

Hidden costs—Loss of privacy

Recall the news last March—the government auctioned computer tapes holding the personal medical histories of approximately 77,000 British Columbians. Despite assurances that the data on BCeSIS is behind a secure firewall, we are all well aware that tenacious hackers have broken into much more complex systems. Data entered in BCeSIS sits on servers connected through the Ministry of Education PLNet high-speed network that connects all BC schools. When asked about security of their electronic data, a district manager in one large metropolitan school district in BC was quoted in *The Province* newspaper in April last year, "We're under constant attack from the outside, and the inside for that matter."

Teacher and parent concerns around confidentiality will undoubtedly increase significantly when they learn that a private organization, not government, maintains the system. BC schools have entered the brave new world of surveillance adopted from our neighbours to the south.

Hidden costs—Misplaced priorities

BCeSIS will have the effect of limiting the way teachers think about their work, especially new teachers with little or no experience. For example, BCeSIS's training manual refers to setting up a seating plan for your class with the teacher at the front of the room—a structure you'll be hard put to find in many of the best classrooms in the province.

Report-card formats limit teacher comments to 80 characters, approximately 16 words, instead of expressing student learning in words that fit the individual child. Especially in the primary grades, student progress should be recorded in words not on a graph or with a number indicating a level. Participating in the BCeSIS experiment has resulted in precious time wasted and no educational benefits at the expense of time spent on instruction and assessment.

System overloaded

Notice on BCeSIS web site September 25, 2006:

"BCeSIS Production and Training Outage Alert"

BCeSIS shut down at a crucial time in September. It lacked the band-width and memory for peak demands and September is just one of those peak times.

Many teachers describe BCeSIS as a nightmare—painfully slow and frustrating, especially when it loses data. Teachers must create and remember new passwords every 90 days. They must ensure that the computer screen is not visible to the students at any time, difficult when response times are lengthy. And, the software does not allow them to transfer data from district programs into BCeSIS.

If BCeSIS must be used, only a minimum of information on students should be required and the full real costs of implementation and operation should be assumed by the province.

BCeSIS—a net loss

There may be benefits to a computerized provincial records system but many of us up here in schools in Kitimat, are yet to be convinced. We have just survived our first term under the new BCeSIS reporting system. We have done our first report cards online using our government-issued laptops. Warning! It sounds better than it is.

We have felt like guinea pigs in some kind of educational experiment. I don't know who volunteered us but the only positive in the whole of it is that we survived. As for the experience, let's just say it was expensive. For well over a month, BCeSIS hijacked our entire teaching agenda. Almost every extra available moment during the six weeks of preparation of the reports was spent mastering the system. We all felt overwhelmed and rather lost. We were using an elementary reporting system

without a built-in spell checker, without a section for technology, and without even a work habits or general summary section. The form was simply flawed, and rather sub-standard. It certainly was not an improvement on what we had used in years past. Of course, being online it should have eliminated unnecessary paper—right? Wrong—we had to photocopy all reports and put them into the files ourselves.

The cost of using BCeSIS should not just be measured in the cost of laptops, technical people, and systems, but in the loss of creativity, lessons, and opportunities. In 32 years of teaching, I have never seen a teaching agenda so de-railed as what I observed in the lead-up to our first term report. There just was no energy or time left to go the extra distance in our lessons. Our lessons, and therefore our students, suffered. As for help with our various computers within the schools, forget it. Any computer technical people were completely dedicated to BCeSIS. There was just no time for other desperately needed solutions for computer problems.

Colleagues, beware of BCeSIS! Your turn is coming soon. BCeSIS needs a lot of refinements before you journey down the road we have just traveled. Good luck.

Walter Thorne, Kitimat

Education services go semi-private

The Ministry of Education is engaged in a process of contracting many aspects of education services to semi-private organizations. In the process, it excludes teachers from a decision-making role.

BCEd Online is one of these semi-private organizations. When it started, there were a number of teachers involved. Officers of CUEBC (Computer Using Educators of BC) were very active, including doing most of the organizing for the annual conferences held by BCEd Online.

Then a decision was made to formalize the structure and create a society. The members of the society are school districts that choose to join. This created a legal structure so the ministry could shovel cash out the door to be spent on the ministry priorities for technology, but out of the direct hands of school districts or direct accountability by the government. With a legal structure and funding in place, BCEd Online then could hire staff to carry out these projects. One of the main purposes of BCEd Online is professional development related to technology—but without teacher participation in decision-making.

This is the strategy being used in a number of areas by the ministry. *BCeSIS* is one of these. Joining BCeSIS is "voluntary" for school districts, but any district that does not join must develop its own software to do the same thing—an expensive venture.

Still another example is the new *Virtual School Society* that is to be given a revenue stream of 5% of the ministry funding of school districts for students in distributed learning. This money is to be used to develop course materials—so curriculum resources will be developed by this society rather than by school districts or the ministry. When a school district signs the required contract with the ministry to offer distributed learning courses, one provision forces them to join the Virtual School Society.

ERAC (Educational Resource Acquisition Consortium) is another of these organizations. It is supposed to be an organization that makes costs for textbooks and learning resources less expensive by aggregating demand and using the Alberta resources organization as a conduit for some of the materials.

You may notice a pattern here. The government creates a semi-private organization. It is a society with the school districts as members and, of course, nearly always administrators, generally district administrators, as the representatives of the members. These then receive government money to carry out projects, or districts have to pay them money to carry out projects (Virtual School Society, BCeSIS, ERAC).

This is the kind of decentralization that is characteristic of neo-liberal policies everywhere and, in particular, favoured by Deputy Minister Emery Dossdall. Direction can be given from the centre, while handing off the accountability to someone other than the government.

The control system for distributed learning is particularly convoluted. Based on the new provisions in Bill 33, a district must get approval from the ministry to offer distributed-learning courses. The ministry only gives approval if the district will sign a contract issued for only a year at a time and if you don't play by the rules, forget another contract. The standard contract is on the ministry web site at www.bced.gov.bc.ca/dist_learning/policy.htm.

The contract requires districts to turn over to one of these semi-private organizations resources for development of learning resources for distributed learning (the Virtual School Society). It also requires the district to "work to meet or exceed the Distributed Learning Standards." Guess who developed the Distributed Learning Standards? That's right, not the ministry, but another of these semi-privatized organizations, BCEd Online.

These semi-private organizations have a couple of things in common. One is that teachers are generally excluded from decision-making—it is mostly administrators who represent the boards that are members. The other is that the ministry gives direction by funding and contracts, but is not carrying out the work itself and escapes accountability for the results.

– *Larry Kuehn*