

**PROJECT VITAL:
Visual Interactive Teaching and Learning (VITAL) for First Nations, Métis, Inuit (FNMI)
and At-Risk Students**

1. Applicant Information:

- a) Boyle Street Education Centre (BSEC)
- b) Shirley Minard, Principal
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- c) BSEC is a publicly-funded accredited Alberta charter school that operates under the governance of a volunteer Board of Trustees. Various committees, in consultation with school administration, have been responsible for ensuring project development, implementation, monitoring and reporting, toward ensuring success of every endeavor BSEC undertakes.
- d) Letter of support from Superintendent attached.
- e) Project **VITAL** team members:
 - Shirley Minard, BSEC Team Member (25-40 hr; 13 yr exp; Project Management, Monitoring & Reporting)*
 - Cliff Whitford, BSEC Team Member (25-30 hr; 14 yr exp; Project Monitoring & Reporting)*
 - Joe Mihok, BSEC Team Member (40-50 hr; 15 yr exp; Technical Support, Training)*
 - Margaret McVea, Education Partner, Concordia University College (25-30 hr; 35 yr exp; Professional Development, Project Monitoring & Reporting)*
- f) Letter of support from partner (Dean of Education) attached.

2. Project Description

Title: Visual Interactive Teaching and Learning (VITAL) for First Nations, Métis, Inuit (FNMI) and At-Risk Students

Visual Interactive Teaching and Learning (VITAL) for First Nations, Métis, Inuit (FNMI) and At-Risk Students emerged from countless roundtable discussions by staff and leadership personnel at BSEC regarding the challenges associated to reaching FNMI and at-risk students at the secondary level. Their struggle to reach students who are not easily engaged and who need intense visual and tangible learning cues has been ongoing since the inception of BSEC in 1996. BSEC is an inner-city charter school with a population of 130 students, 90% of whom are of FNMI descent, while the remaining 10% are of various other ethnicities. A common thread amongst most BSEC students is that the vast majority have experienced little to no success in previous regular school-setting. Due to a number of socio-economic variables including homelessness, personal addiction issues, family breakdown, poverty, etc, many have been identified as at-risk of experiencing greater social difficulties in their futures. The project described herein may remove some of the barriers to effective instruction of FNMI and at-risk students by providing significant visual and tangible learning opportunities in the form of improved access to technology, use of interactive whiteboards for small/large group learning, and integrated curriculum-appropriate software.

The goals of the **Project VITAL** are as follows (in addition, see Appendix 1):

- To provide a safe and comfortable visual interactive teaching and learning environment in every classroom.
- To highlight the appropriate and non-threatening use of technology to enhance the learning and teaching and make students progress towards provincial graduation requirements (i.e. social networking functions such as web logs for daily journaling).
- To ensure all BSEC students have equitable access to technology and maximize their capacity to pursue further education.
- To ensure all BSEC staff members are appropriately trained to utilize the above learning technologies.

Goal	2003-04 RESULT	2004-05 RESULT	2005-06 RESULT	2006-07 RESULT	2006-07 TARGETS
To create a more respectful, caring and positive school climate.	71.7%	88.3%	86.0%	85.0%	90%
To make students progress towards provincial graduation requirements.	1247 Credits	1625 Credits	1520 Credits	1284 Credits	1600 Credits
To maintain the professional development and in-servicing for the teachers from the school authority focussed, systematic and a significant contributor to their ongoing profession growth.	NA	86.1%	97.4%	79.5%	95.0%
Students maximize their capacity to pursue further education after BSEC.	70.6%	69.6%	65.4%	57.7%	70%
To maintain the overall school attendance at acceptable levels.	53.1%	54.0%	58%	47%	55%

Target Students and Educators:

- All BSEC Staff (14 certified & 7 support staff)
- All BSEC Students
- Grade Level - Literacy to grade 12 students are all registered in grade 10, 11 or 12

2007-2008 September 30th - BSEC Student Count

Grade Level	Male Students	Female Students	Count
10	41	51	94
11	16	14	30
12	0	8	8

Total Student Count: 132

*Students are aged 14-19 years, 3 year average self identify as FNMI 90%.
2007 – 2008 September 30 count self identify FNMI 81%*

Over the school year BSEC maintains a student population of approx 125+ students. The school is year round and facilities four terms. We adhere to a continuous registration practice which allows for a very transient student population to register when they are ready. Our yearly average year student registration oversees student intakes of approx 270 students.

Method:

BSEC teachers who teach FMNI and at-risk students often remark that such students are quiet in class and do not participate much in discussions. One of the goals of Project **VITAL** is to develop a comfortable and safe, yet interactive and visual environment for FNMI and at-risk learners to increase in-class participation. The hardware and software that will be deployed to accomplish this include interactive whiteboards with appropriate software for all core and optional subjects. By providing a dynamic yet safe learning environment for BSEC students, Project **VITAL** will attempt to provide FNMI and at-risk learners with:

- a variety of approaches and learning materials
 - BSEC has traditionally focused on 1-to-1 learning. With the addition of new equipment and technology, we will re-focus our efforts to working with small groups of students with similar interests. (i.e. use of weblogs for student reflection; building student portfolios on-line; use of Google lit trips and Google maps in SS)
 - With Professional Development focusing on assessment for learning and performance-based learning, teachers will ideally approach their teaching from a backwards design model. This will build on existing project-based learning strategies and will be enhanced by the increased availability of technology and the dedicated use of interactive whiteboards in each learning space.

- appropriate supports that includes modeling, guided practice and independent practice
 - Monthly Professional Development will emphasize effective teaching practices and provide teachers with tools to use in their daily teaching.
 - Sessions focusing on the functionality of social networking (Web 2.0), creating virtual field trips, seeking out interactive games for teaching problem-solving, resource-building (LearnAB, Telus2Learn) will be provided.

- opportunities to transfer skills and ideas from one situation to another
 - The deployment of the course management system (Moodle) for BSEC staff and students will provide easy access to information, coursework, assignments, and grades. Teacher generated forums, wikis and other public spaces will help make their learning more transferable. Professional development around media awareness and netiquette will be important to this process.

- meaningful connections between skills, ideas, and real-life situations
 - BSEC students will be trained to use mainstream software applications relevant today's workplace (i.e. 3D Hairstyle Studio).

- opportunities to be independent and show their acquired knowledge
 - The use of systems such as Moodle and the increased availability of technology in the school will provide a level of independence to our students. As many of our students are independently studying and are already significantly monitored through their IPP's, the approaches described above will serve to enhance that independence and pride of completion.

- encouragement to self-monitor and self-correct
 - Technology, in general, provides immediate and relevant feedback to its users. The software applications we are considering lend themselves to individual monitoring and adjusting (i.e. Accelerated Reader).

- tools for reflecting on and assessing their learning
 - BSEC continues its ongoing exploration for reflecting on and assessing learning (i.e. E-luminate).

Rationale:

BSEC has always operated from a hands-on project-based learning approach. Hands-on learning has allowed the FNMI and at-risk students they teach to experience greater success, higher retention, and improved attendance (Cardon, 2000). FNMI and at-risk students at BSEC follow individualized program plans in the majority of cases. These plans are coordinated between teachers and students and reflect various levels of learning and multiple learning paths. Technology has become a performance support (Edyburn, 2006) to the students at BSEC who commonly experience academic difficulties. By providing more technological support through visual and interactive tools, Project VITAL hopes to further engage and promote their students' efforts. BSEC has also tried to focus on using effective instructional strategies to accommodate their wide range of student differences as well as to encourage all students to become independent, strategic learners.

Project **VITAL**, by using current technologies and tools, will further enhance this work by:

- engaging and motivating students through use of interactive tools and strategically placed cooperative learning,
- helping students to focus through concept mapping tools and graphic organizers,
- organizing information for ease of understanding, remembering, and accessibility through a school-wide course management system,
- encouraging students to reflect on their successes through independent study and collaborative networking.

By enriching the learning experience and increasing the relevance of the current resources offered, students at BSEC will be more likely to be motivated and further engaged to learn. Infusing the ICT curriculum to support research, writing, editing and presentation of their work should promote greater literacy. Finally, taking a more constructivist view of teaching and learning will promote and encourage project-based activities with students more active in their learning (Brown Yoder 2006).

BSEC high school completion rates are currently below the provincial average. However, these students are now attending school more regularly and experiencing greater success today than in any other educational setting in their schooling pasts. Providing for a more interactive and motivating environment can only continue the progress that has been made to date.

3. Technical Support:

Technical support will be provided toward ensuring all acquired equipment is managed and maintained in a manner that minimizes equipment breakdown occurrences. In this regard, project VITAL will institute a multi-level support system (outlined below) toward ensuring equipment sustainability.

Support Level	Definition	Technical Staff
Level 1	- Minor hardware/software malfunctions covered under manufacturer warranty. - Installations related to infrastructure.	Off-Site Technician
Level 2	- Minor hardware/software malfunctions not covered under manufacturer warranty. - Installations not related to infrastructure.	On-Site Network Administrator
Level 3	- Hardware/Software related questions and very minor problems not hindering functionality.	Trained Teachers and Staff

4. Professional Development:

The professional development portion of Project **VITAL** will be critical toward ensuring its success. Beginning with a small team of educators in the preliminary stages of the process, the project will expand to include all teachers and support staff. The professional development will take two approaches: 1) Technical: To ensure teachers and support staff can run the equipment and; 2) Pedagogical: To support all staff to understand and apply the educational perspectives of the various programs and software. Professional development will be ongoing and supported by the post secondary partner.

5. Evaluation, Research and Reporting:

Project **VITAL** will be measured and tracked as set out by the goals on Page 2 of this proposal. In addition, the following essential conditions have been adapted and adopted for Project **VITAL**:

Essential Conditions for Implementing Technology in Schools

Shared Vision – A small committee of administration, the partner and interested teachers at BSEC have convened to build the vision and components of Project **VITAL**.

Equitable Access – Students and staff have equitable access to school technologies (hardware/software), and resources and technology are readily available within the learning environment.

Skilled Personnel – Technical training is in-house and will be substantive to Project **VITAL**.

Professional Development – Technology-related professional development to ensure Project **VITAL** is a successful project will occur throughout its implementation. Partnering with Concordia University College is a win-win solution which coordinates action research and teacher development and benefits both partners.

Technical Assistance – BSEC personnel currently have technical assistance for maintaining and using technology as well as technical support within the learning environment.

Content Standards and Curriculum Resources – Professional development will ensure that teachers, administrators and support staff are knowledgeable about content and technology standards, related ICT curricular outcomes and resources, and the use of technology to support learning is in place.

Student-Centered Teaching – BSEC prides itself on its student-centered learning approach. This will be enhanced by the Project **VITAL**, which will also ensure that future instructional methods incorporate a variety of technologies to meet individual needs of students.

Assessment and Accountability – The goals for the Project **VITAL** regarding technology use will be tracked and reported through a continual assessment of effective technology use for improving student learning. A sampling of BSEC students will also be garnered through satisfaction surveys and analyzed once per reporting period. These tracking strategies will assist the **VITAL** team in gauging project success and recommending changes if/when necessary.

Community Support – BSEC collaborates and communicates with various community support organizations. Go to <http://www.bsec.ab.ca> for further information. As well the partnership between BSEC and CUCA is a strong indicator of wider community support.

Support Policies – BSEC has policies, financial plans, and structures to support the use of technology in its learning and operations.

It is understood by the **VITAL** team that there are three reports required. These reports include:

- a. Two interim reports due: January 30, 2008 and January 30, 2009.
- b. One final written report due November 30, 2010 (report format will be provided).

As well, Alberta Education is welcome to make a site visit at any time.

6. Sustainability:

Project **VITAL** will be sustained by continuing professional development as well as regular reviews of the project's relevance and/or upgrade of software and hardware needs as required. Given the significance of this project, all participants have agreed to prioritize this learning and teaching effort.

7. Deliverables and Timelines:

The major activities to be carried out by the lead applicant and by any partner(s) are described in the table below:

Deliverables	Person(s) Responsible	Timeline
Purchase and Installation of Hardware/Software	On-Site Network Administrator	February– March 2008
Technical Training	On-Site Network Administrator	March – April 2008
Professional Development	M. McVea	
Smart Board development and training	M. McVea/J. Mihok/Apex AV	August 2008
Internet Safety and Media Awareness	M. McVea	September 2008
Science Software Applications	M. McVea	October 2008
Electronic Reporting & IPP's	M. McVea with ECSD/EPsB support	November 2008
Resource Building - LearnAB, Telus2learn	M. McVea with external support	January 2009
Webquests and Virtual Field Trips	M. McVea	March 2009
Math Technologies for Learning	M. McVea/K. Willson (U of A)	April 2009
Web 2.0	M. McVea with external support	May 2009
Reporting	BSEC administrative team	January 2008 January 2009 November 2010

8. Budget:

The table below describes in appropriate detail how the Alberta Education funding will be used as well as any in-kind contributions of lead and supporting partners.

Budget Proposal			Alberta Education Funding	Jurisdiction In-kind Contribution
Personnel	FTE	Cost/Unit	Subtotal:	Subtotal
Dr. Margaret McVea	.1 /year	\$10 000		\$30 000
Jozsef Mihok	.1/year	\$10 000		\$30 000
Professional Development and/or technical training w/assoc costs	Units	Cost/Unit	Subtotal:	Subtotal
Please see above for in-kind contributions And #7 for descriptions of services and time-line				
Equipment/Technology	No. Units	Cost/Unit	Subtotal:	Subtotal
Smart 77" SmartBoard With Unifi Projector	10	\$5918.20	\$59182.00	
Smart 77" Diagonal SmartBoard	1	\$3199.00	\$3199.00	
Intel Dual Core Pentium Systems	5	\$724.00	\$3620.00	
LG 19" Widescreen LCD	45	\$186.66	\$8400.00	
Misc. Cables and Adaptors			\$1,075.43	
Software Resources	Unit	Cost/Unit	Subtotal:	Subtotal
Accelerated Reader (Base License)	1	\$2700.00	\$2700.00	
Accelerated Reader (3-year Subscription)	1	\$3000.00	\$3000.00	
3D Hairstyle Studio	1	\$950.00	\$950.00	
Smart Concept Mapping	1	\$1600.00	\$1600.00	
Windows XP Pro	5	\$165	\$825.00	
ExploreLearning.com (3 year Subscription)	1	\$2100.00	\$2100.00	
Froguts.com Subscription (3 years)	1	\$900.00	\$900.00	
Echalk.co.uk 3-year Subscription	1	\$1020.00	\$1020.00	
Miscellaneous	Unit	Cost/Unit	Subtotal:	Subtotal
Survey/ Questionnaire Development- Pre & post surveys of all students and staff re: internet/technology usage, technology skill sets, and technology attitudes.	.01	\$1000.00/year		\$3000.00
Interviewing Staff & Students- One-to-one interviews will deepen the survey data.	.01	\$1000.00/year		\$3000.00
Monitoring & Reporting –Collecting and displaying the results of the data above as well as the anecdotal/representational responses to the project as a whole.	.01	\$1000.00/year		\$3000.00
G.S.T (Applicable to hardware and software)			\$4,428.57	
Totals			\$93000. 00	\$69 000.00