

# Supporting the Literacy Learner II

Promising Literacy Strategies in Alberta  
from  
Cycle 2 and Cycle 3 AISI Projects

2010

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<http://education.alberta.ca/teachers/program/literacy.aspx>.

The primary audience for this resource is:

Teachers	✓
Administrators	✓
Students	
Parents	

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# Introduction

## Literacy

***Literacy is acquiring, creating, connecting and communicating meaning in a wide variety of contexts.***

Definitions and understandings of what is literacy have broadened and changed over the past 50 years. In 1949, the United Nations General Assembly envisioned the minimum requirements for fundamental education as including domestic skills, knowledge of other cultures and an opportunity to develop personal attributes such as initiative and freedom (UNESCO, 2005). As definitions of literacy have shifted from a discrete set of skills to human resource skills for economic growth to capabilities for sociocultural change, the ability to articulate the deeper conceptual aspects of literacy becomes more difficult. “To me, being literate encompasses self-discipline, control of language, facilitation of personal expression, creation of compassion and an understanding of life options and decisions. It’s a collective sense of being part of a more scholarly life, a more passionate life, and that is my goal as a teacher. To reach every kid, *every kid*, we must constantly search for the means to bring that kid into the literacy fold by engaging them in passionate learning and discourse” (Morgan, 2006, p. 388).

We are reminded that the types and levels of literacy skills necessary for economic participation, citizenship, parenting and individual advancement in the 1800s were different from those needed in the 1900s, and those required for the future are changing even more rapidly than before. Technology drives much of our economy in the 21<sup>st</sup> century and our students are expected to know how to communicate in more complex ways.

As a variety of complex texts become an integral part of basic social, political and economic institutions, the ability of individuals to partake in the free exchange of information is becoming the new definition of a literate society. As educators, we have a responsibility to ensure that our classrooms are preparing our learners for the new literacy requirements. “... the classroom must be a place where literacy becomes inescapable because it is not only the passport to connecting and making sense of the world, it is ultimately key to making the world a better place” (Hill, 2006, p. 392).

In 2009, Alberta released a document entitled *Living Literacy: A Literacy Framework for Alberta’s Next Generation Economy*. This document provides a framework for action that will coordinate the efforts of the Government of Alberta and its many partners and stakeholders to improve the literacy levels of all Albertans.

In October 2010, Alberta Education released *Literacy First: A Plan for Action*. This Action Plan outlines strategies and actions to support the vision, values and goals in the provincial framework.

Alberta Education's Strategy No. 2 in *Literacy First: A Plan for Action* promotes literacy learning by communicating the importance of literacy development for student success. The promising literacy practices highlighted within *Supporting the Literacy Learner II* help support this strategy. *Supporting the Literacy Learner II* represents only a small cross section of the many innovative literacy projects taking place in Alberta schools. The 17 Alberta Initiative for School Improvement (AISI) projects showcased in this document illustrate how teachers in Alberta are incorporating the multi-literacies into their students' learning.

Educators across Alberta are working together to develop literacy plans and frameworks to ensure that their students receive the strategic instruction and support they need to develop as fully literate readers, writers, talkers and thinkers.

# Selection of Projects

*Supporting the Literacy Learner: Promising Literacy Strategies in Alberta* was developed and published by Alberta Education in 2008. This document contained a sampling of literacy projects from Cycle 1 and Cycle 2 of the Alberta Initiative for School Improvement (AISI). Detailed information about the AISI projects and promising practices can be found on the Alberta Education Web site at <http://education.alberta.ca/admin/aisi/chouse.aspx>.

The highlighted literacy projects in the 2008 document served “to inform teachers, curriculum coordinators, AISI coordinators, school administrators, central office staff and others involved in the education process about successful literacy strategies [then] in use in Alberta schools” (p. 2). The purpose of sharing these promising literacy strategies was to provide educators with the opportunity to select successful strategies that could work in their schools or school districts. Many of the highlighted projects focused on reading and other language arts strategies for students.

Since the 2008 document was released, work has continued in the area of literacy. Alberta is in the process of identifying a common definition of literacy, and Alberta Education has drafted a comprehensive definition for the K–12 education system which moves beyond language arts and includes digital literacy and numeracy.

The review of AISI projects for this 2010 document began in January 2009. All 462 AISI Cycle 2\* projects and all 388 Cycle 3\* projects were reviewed with the broader definition of literacy as the focus.

Initially, many potential projects were reviewed and identified for inclusion in this document. The project manager from Curriculum Branch of Alberta Education and a private contractor reviewed the projects three more times and compiled the final short list. During the review, the following factors were taken into consideration:

- school—urban or rural; public, separate or private
- scope of the project—single school, multiple schools or cross-divisional
- students—grade level(s) of students involved, number of students involved; diversity of student population
- demonstration of literacy strategies that addressed elements of the new definition
- successful strategies identified and lessons learned by the project teams.

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\*Complete information about all of the Cycle 2 and Cycle 3 projects highlighted in this 2010 document can be found on the Alberta Education Web site at <http://education.alberta.ca/admin/aisi/chouse.aspx>.

Seventeen projects were finally selected and grouped into the following five categories, which emerged during the review process:

- Creative and Critical Thinking—four projects
- Cross-curricular Connections—three projects
- Diversity—Addressing Multiple Literacies—three projects
- Professional Development—four projects
- Technology/Digital Literacy—three projects.

Following the selection process, an introduction to each of the categories was written to highlight the new definition of literacy and provide a context for the projects in that category.

- Common tenets that were similar in the successful AISI projects were identified and general comments were included.
- An overview chart of the highlighted projects in each category was developed.

Then, a summary of each project was written. It included:

- Project Overview—what they did, how they did it, what they learned
- Promising Practices/Key Strategies—successful strategies accompanied by examples and quotes
- Unexpected Delights—unexpected success stories.

The strategies and activities outlined in these projects can be adopted and adapted by other teachers and administrators to provide students and staff with meaningful literacy experiences that will lead to improved learning and teaching in the classroom.

# Creative and Critical Thinking

Many of the AISI literacy projects reviewed were based on creative and critical thinking, with a focus on both numeracy and digital literacy.

Literacy is about learning to learn, solving problems, developing critical thinking skills and collaborating and communicating. Literacy requires a teaching and learning process (including assessment) that is focused on meaning making; “rather than merely reproducing uncritically what they have been taught, learners should be able to make sense of the world and develop their own perspectives” (Lonsdale and McCurry, 2004, p. 11).

Literacy enables us to make meaning, share information and interact with others. The proposed definition of literacy for Alberta’s K–12 education system is as follows:

*Literacy is acquiring, creating, connecting and communicating meaning in a wide variety of contexts.*

The following explanations clarify the terminology used in the definition:

- acquiring—knowing how to collect and/or retrieve information
- creating—making meaning by adapting, applying, designing, inventing, repurposing or authoring information
- connecting—interpreting and representing; making judgements about the quality, relevance, usefulness or efficiency of information; finding and understanding relationships among concepts; and using and transferring knowledge
- communicating—exchanging information by various means
- meaning—making sense and bringing order and understanding to information
- context—includes any element present in a communication situation that influences the creation and interpretation of text.

## Common Tenets

Some of the similarities identified in successful AISI projects that focused on creative and critical thinking included the following:

### Collaboration

- Teams—AISI coordinators, central office staff, lead teachers, staff, parents—were more successful when opportunities for continual collaboration were in place.
- Teachers, working in teams, were able to support each other to try new instructional strategies.

### Professional Development (PD)

- PD was very successful when it respected “the collective experience and expertise and knowledge of all participants.”
- Time is needed for teachers to build trust among themselves, to mentor and encourage professional growth.
- “The scope and sequence of our professional development was determined collaboratively and was based on best practice.”
- “The teacher of teachers” model works well.

### Instructional/Learning Strategies

- When teachers are able to design and experiment with instructional strategies, and to share them with other project teachers, implementation is increased. This can lead to significant improvement in student attitudes and achievement.
- “Integrating fine arts in the language class (of ESL students) increased student participation and enjoyment in other curriculum areas.”
  - Students had more opportunities to learn and express their understanding through a variety of media.
  - Fine arts “provided an extension and expanded opportunities for students to demonstrate understanding connected with written literacy.”

### For More Information ...

Visit Alberta Education Web site—AISI Projects and Promising Practices at <http://education.alberta.ca/admin/aisi/chouse.aspx>.

## An Overview of Creative and Critical Thinking AISI Projects

Project	Purpose	Description
<p><b>Primary Mathematical Literacy</b></p> <p>AISI #30054 Cycle 3</p> <p>Grades K–3 740 Students, 6 Schools</p> <p>Edmonton Catholic Separate School District No. 7</p>	<p>To improve teaching and learning in the area of early mathematical literacy.</p>	<p>Develop a shared professional vocabulary in the area of mathematics teaching and learning, implement effective formative assessment practices, develop capacity within primary teachers to assess the individual needs of their students, implement an effective instructional strategy, and determine results and future learning directions. Engage parents as partners in improving the mathematical literacy skills.</p>
<p><b>Elementary School Level Higher-order Thinking Skills</b></p> <p>AISI #10080 Cycle 2</p> <p>Grades 1–6 150 Students, 1 School</p> <p>Holy Spirit Roman Catholic Separate Regional Division No. 4</p>	<p>To improve students' ability to demonstrate Bloom's higher-level skills.</p>	<p>Implement cross-curricular instructional strategies that can most effectively improve students' skills of analysis, synthesis, evaluation and creativity.</p>
<p><b>Improving Language Acquisition through Fine Arts</b></p> <p>AISI #30428 Cycle 3</p> <p>Grades K–9 685 Students, 1 School</p> <p>Almadina School Society</p>	<p>To enhance the achievement of learner outcomes in the area of fine arts and English language arts.</p>	<p>Increase teacher capacity by providing professional development, resources and cooperative and collaborative teaching opportunities, and increase opportunities for students to express their learning through their multiple intelligences and the fine arts focus.</p>
<p><b>Numeracy</b></p> <p>AISI #30341 Cycle 3</p> <p>Grades 1–12 2000 Students, 11 Schools</p> <p>Peace Wapiti School Division No. 76</p>	<p>To increase student achievement in mathematics at the excellence level.</p>	<p>Increase the efficacy of program delivery throughout the jurisdiction through the use of a highly structured learning community enhanced by the development and establishment of the Peace Region Education Portal (PREP), a Web site that facilitates collaboration. Utilize strategies such as Power of 10, Graphing, Quickdraw and Number Sense, Understanding by Design, and Multiple Learning Intelligences.</p>

## Primary Mathematical Literacy, Grades K–3

Edmonton Catholic Separate School District No. 7, AISI Project #30054

### PROJECT OVERVIEW

#### What they did ...

- Edmonton Catholic Separate School District focused this project on the following four areas:
  - improved teaching and learning in the area of early mathematical literacy
  - development of a shared professional vocabulary in the area of mathematics teaching and learning
  - implementation of effective formative assessment practices
  - engaged parents as partners in improving the mathematical literacy skills.
- An important feature of this project was “to develop capacity within primary teachers to assess the individual needs of their students, implement an effective instructional strategy, and determine results and future learning directions.”

#### How they did it ...

- The Primary Mathematical Literacy Project was initiated by principals interested in building a collaborative mathematics model among teachers in district schools.
- Individual student conceptual understanding was diagnosed (Early Years Interview) to plan for differentiated instruction.
- Staff integrated ‘teaching through problem solving’ into the daily mathematics lessons, setting criteria for rich mathematics tasks, selecting and developing common problems and tasks, and reflecting on individual student thinking.
- Content-focused coaching “enhanced teacher reflective practice before, during and after teaching and helped teachers to learn in and through their own practice.”

#### What they learned ...

- Teachers moved away from direct teaching techniques to problem-based learning.
- Parent Information Nights and Family Math Evenings were extremely well attended and received at all schools.

“Most teachers strongly agreed that the project had a positive impact on student learning in their classroom and that coaching was instrumental in ensuring the success of the project.”

## PROMISING PRACTICES/KEY STRATEGIES

### Instructional Strategies

- Teachers designed and experimented with open-ended mathematics investigations based on learning through problem solving. “These investigations were shared between project teachers, including the examination of student work from common tasks. This instructional strategy, using one great task over several days, was new to most project teachers.”
- “Both teachers and students reported that attitudes toward mathematics learning improved significantly because of this new instructional strategy.”

### Professional Development

- The Early Years Interview provided teachers with “a clear understanding of each child’s mathematical thinking (as measured in Growth Points) in the key areas of early numeracy—counting, place value, addition and subtraction, and multiplication and division.”
- The Young Mathematicians at Work program “provided teachers with opportunities to construct a deep understanding of how mathematical thinking develops as well as pedagogical skills that are radically different from traditional math teaching.”
- Grade-level and cross-grade sharing of experiences, mathematical tasks and new ideas/strategies helped to create a broad, shared knowledge base across schools.

### Unexpected Delights ...

- The Primary Mathematical Literacy Project received numerous acknowledgements including:
  - an article in the *Edmonton Journal*
  - an Alberta Association for Supervision and Curriculum Development (AASCD) award for innovative practices
  - a Board of Trustees award.

## Elementary School Level Higher-order Thinking Skills, Grades 1–6

Holy Spirit Roman Catholic Separate Regional Division No. 4,  
AISI Project #10080

### PROJECT OVERVIEW

#### What they did ...

- Holy Spirit Roman Catholic Separate Regional Division focused on cross-curricular instructional strategies that involved analysis, synthesis, evaluation and creativity skills.
- Two teaching staff members were sent to participate in workshops or courses at the University of California and Simon Fraser University. The workshops focused on:
  - the infusion of thinking skills into lesson development
  - tools, strategies and elements in the arts and literature to increase creative thinking skills.
- This project used professional development as a key strategy.
  - All staff had participated in professional development activities focused on developing lessons that infuse thinking skills into the lesson.

#### How they did it ...

- Each teacher had the opportunity to attend an appropriate conference on higher-level thinking skills.
- The staff collectively identified five habits of the mind—metacognition, thinking and communicating with clarity and precision, striving for accuracy and precision, thinking interdependently, thinking flexibly. This enabled the staff to develop a common vocabulary that they taught to the students.
- Teachers infused multiple intelligences assessment instruments into language arts and science subject areas in grades 1–6.
- Materials, resources and texts were purchased to assist teachers in the development of their own lessons focusing on thinking skills.

“Our teaching practice has, as an integral component, the vocabulary of higher-level thinking skills. The students are immersed in this vocabulary and hence an understanding of Bloom’s taxonomy and its meaning.”

### What they learned ...

- “The teacher-of-teachers model worked well and we will continue with this professional development model in the future.”
- Staff stated that the most successful professional development included literature, direct instruction and an opportunity to put into practice the theories being examined.
- Opportunities for staff to dialogue and share successes and anxieties collectively created a climate more conducive to professional learning communities.
- Student achievement increased and students were more able to demonstrate an increased understanding of metacognitive skills.
- Staff observed “a transfer of higher-level thinking skills taught in one subject to other subject areas.”

“The development of a common vocabulary and structured lesson design enabled us to be consistent as the students went from one teacher to another and one grade to another.”

## PROMISING PRACTICES/KEY STRATEGIES

### Project Management

- “For the entire three years of this project, we used a teacher-of-teachers model where two staff members were sent to professional development sessions ... and then inserviced the rest of the staff on an ongoing basis.”

### Professional Development

- Professional development was one of the major tools used to improve student learning in this project.
- “The scope and sequence of our professional development was determined collaboratively and was based on best practice.”
- “The teaching of and discussion of the teaching of the higher-level thinking skills is an integral part of our school program. On a regular basis we discuss our progress in our professional development.”

## Unexpected Delights ...

- “One of our greatest success stories was that at the end of this project the teachers will retain the skills they learned and will continue to use them in the future resulting in continuous improvement in student learning.”
- “We have demonstrated continuous growth in almost all of our measures, both quantitative and qualitative. Our professional discussions have become more rigorous and focused on student achievement and learning. This project has provided a significant foundation for our praxis and practice.”
- “One of our most profound achievements was the willingness of the staff to devote their administration days to professional development rather than getting ready for the school year, as was our past practice. By having a common goal, the staff tailored their off-site professional development to ensure shared professional growth and hence increasing student learning consistently across the grades.”

# Improving Language Acquisition through Fine Arts, Grades K–9

Almadina School Society, AISI Project #30428

## PROJECT OVERVIEW

### What they did ...

- The staff focused on building literacy across content areas to support their students in increasing academic achievement.
- “The fine arts focus was used to build students’ language acquisition, specifically in the curriculum areas of ELA and social studies.”

### How they did it ...

- “Our student population has significant ESL needs. Although the majority of students are Canadian born, they arrive at school with minimal levels of language, especially in academic English.”
- Staff developed a common and coordinated vision of how to enhance fine arts programming and connect it with English language arts and social studies.
- Workshops were offered that supported competency and confidence in the use of fine arts to build literacy and enhance language acquisition in the content areas of English language arts and social studies.
- “Our model emphasized fine arts strands—drama, visual arts and music.”
  - This involved the use of specialists alongside classroom teachers.
  - Staff attended fine-arts-based workshops to increase teacher capacity and comfort levels.

### What they learned ...

- Students had more opportunities to learn and express their understanding through a variety of media.

“Integrating fine arts in the language class increased student participation and enjoyment in other curriculum areas; it added a new dimension which had been limited.”

## PROMISING PRACTICES/KEY STRATEGIES

### Learning Strategies

- A sampling of pedagogical practices included the following:
  - using drama to enhance higher-order language and literacy skills, understanding of the role of culture, history through re-enactments and acting out of perspectives
  - enhancing oral interpretation through storytelling
  - creating and using masks and puppetry to focus on viewpoints and characterization, and to enhance comprehension and storytelling
  - using music to enhance detection of auditory discrimination, building phonemic awareness, patterns and rhythms in English
  - drawing/sketching, creating mind maps to illustrate understandings
  - using readers’ theatre to enhance comprehension and build fluency
  - “Students were provided with multiple fine arts choices to express their learning outcomes in ELA and social studies. They learned about their diverse intelligences and learning styles.”

### Professional Development

- Staff connected with organizations, internal experts and councils who supported the linkages between curricular content and fine arts applications.
- Teachers were provided with many opportunities for professional growth.
- Time was allocated during the instructional day for teachers to collaborate on an on-going basis.
- “It was the responsibility of all staff in utilizing AISI resources to support this learning community.”

### Collaboration

- This project had considerable stakeholder input, including that of students and parents, during the planning stages based on the initial draft generated by an AISI fine arts committee.
- The charter school board provided its input by asking that the fine arts connections be as multicultural as possible in terms of sampling a variety of cultures.

### Unexpected Delights ...

- “The Parent Council created videos on programming.”
- “Staff participated in charter schools ‘Strut Your Stuff’ display.”

## Numeracy, Grades 1–12

Peace Wapiti School Division No. 76, AISI Project #30341

### PROJECT OVERVIEW

#### What they did ...

- Used highly structured learning communities to enhance mathematics program delivery in all grades.
- This project was built on a strong foundation including:
  - diagnosis—areas of deficiency and specific learner outcomes
  - assessment tools—to demonstrate mastery of chosen outcomes
  - “Backward Design—to create the instructional sequence and the use of skills inventory at the beginning of appropriate strands/units to identify deficiencies.”

#### How they did it ...

- System-wide professional development was used as a key strategy.
- One curriculum coordinator per division was appointed at 0.2 full-time equivalent (FTE) to work with the AISI Coordinator.
  - Curriculum coordinators orchestrated and coordinated professional development activities for all teachers.
  - Each school assigned a lead teacher per division.
- Areas of focus included:
  - Division 1 (grades 1–3): number sense and number fluency, with an emphasis on problem solving
  - Division 2 (grades 4–6): use of word walls, weekly graphs, quick draws and peer tutoring, with an emphasis on number and transformation strands and on problem solving
  - Divisions 3 and 4 (grades 7–12): use of Backward Design and Multiple Learning Intelligences to enhance the use of instructional resources such as computers and digital media, with an emphasis on the transformation strand.
- Staff collaborated to create a set of teacher resources, including an examination bank.

#### What they learned ...

- “There is ‘total’ acceptance of the programs and strategies as decisions were made collaboratively.” The collaborative process works.
- These professional development sessions have “directed me to rethink what I think about math and how children learn.”

“It is very important that our new learnings are converted into a classroom useable product.”

“New teachers have welcomed the mentorship as a result of the collaborative work. It has provided them access to a wealth of resources and one-on-one support.”

“The Moodle site is evolving into a valuable tool for collaboration and the sharing of materials and has been used extensively with teachers at the secondary levels. It is proving to be a valuable bridge for the continuous flow of information among teachers between face-to-face meetings.”

## PROMISING PRACTICES/KEY STRATEGIES

### Professional Development

- A professional growth environment was established based on the following principles:
  - recognizing the professionalism of all participants
  - creating time for teachers to build trust among themselves to mentor and encourage professional growth
  - respecting the collective experience, expertise and knowledge of all participants.
- “Curriculum coordinators participated in extensive professional development in assessment and technology training in addition to in-depth book study of Marzano’s books.”

### Collaboration

- The AISI coordinator and deputy superintendent were responsible for spearheading the planning efforts.
  - “School administrators were asked to identify areas in their schools’ programming that were lacking or needed attention, or areas where they simply would like to improve. This they did in consultation with their staffs.”
  - At the school councils’ meeting, potential areas of interest were presented to representatives of the various schools, and subsequently incorporated.
  - Four curriculum coordinators, one per division, focused on professional development and worked collaboratively with the teachers throughout the process.

## Unexpected Delights ...

- “A pleasant ‘surprise’, as a result of the professional development activities and the culture that has been established by the curriculum coordinators, is the growing popularity of the work that is being done.”
  - More teachers want to become participants in the project “for word has spread espousing the value of the work being done.”
  - In response to these additional requests, “the criteria regarding the number of lead teachers that may represent each school has been relaxed.”
- “The project has opened doors for teachers to explore and introduce different/new tools to their teaching repertoire.”
- “Examination, evaluation and analysis of the PATs and the CTBS results revealed that there are common areas of concern throughout the jurisdiction; and that these concerns are better resolved collaboratively.”
- “The Moodle technology was developed to create a collaboration site for AISI project leaders. Its effectiveness, adaptability and user friendliness is such that the jurisdiction now hosts many other collaborative areas on the site.”



# Cross-curricular Connections

Several of the AISI literacy projects approached literacy through making cross-curricular connections. This section highlights three projects that focused on a variety of subject areas over different grade levels.

Many of the cross-curricular AISI projects focused on the use of technology or digital literacy that:

- includes information and communication technology (ICT) skills as an integral part of literacy
- includes not only the mastery of technical skills but also the ability to use critical and cognitive skills, both with print and multimedia texts.

The International ICT Literacy Panel defined ICT literacy as “using digital technology, communications tools, and/or networks to access, manage, integrate, evaluate, and create information in order to function in a knowledge society” (2007, p. 2).

Many of the cross-curricular AISI projects include mathematics as one of the core subject areas. Numeracy can be considered as a way of knowing—one that helps students understand all of their school subjects better.

- Strengthening students’ logic abilities by exercising them in other subject areas may offer students another means of comprehending these subjects.
- Increasing students’ opportunities to apply their numeracy skills, such as interpreting data, critical thinking, problem solving and using information to make decisions, should result in more students integrating them into their everyday understandings.
- Numeracy and communication skills are developed in conjunction with each other, both being an integral part of literacy.

Research shows that students need the opportunity to use different literacy strategies in a variety of contexts to master and efficiently transfer skills from one area to another. Students may not automatically transfer knowledge and skills without explicit instruction. The assumption that these skills should be taught in the language arts classroom is prevalent, but literacy instruction must be embedded across the curriculum and must ensure that every student develop skills beyond the basic literacy skills of the early elementary grades.

The transfer of knowledge and skills becomes critically important in junior and senior high school where students are often required to use subject-specific vocabulary, without the benefit of direct instruction, to demonstrate their understanding of complex text structures, formulas and graphs and charts. If

students are to succeed in content-area subjects, teachers must provide them with direct instruction about strategies they can use to construct meaning. Studies show that literacy skills, including reading, writing, speaking, listening, viewing and representing, and numeracy and digital literacies, need to be explicitly taught by all teachers in all of the content areas.

### Common Tenets

Some of the similarities identified in successful AISI projects that focused on cross-curricular connections included the following:

#### Leadership/Project Management

- The most successful projects had strong commitment and involvement of district leaders and school-based administrators.
- It is imperative to provide staff with opportunities to collaborate, particularly if the project involves several schools.
- The support of stakeholders and the broader community creates a stronger foundation for the projects and improves the degree of successful implementation.
- Highly successful projects developed a shared vision and created a “common language” among teachers and students.

#### Professional Development

- Projects where teachers worked on teams provided good opportunities to share strategies across subject areas.
- Professional development (PD) sessions with a strong research base were well received.
- “Teachers’ enthusiasm towards the profession has significantly increased, especially when practical, professional, hands-on workshop sessions occur.”

#### Instructional Strategies

- Providing teachers with an array of instructional strategies helped to meet diverse student learning styles.
- Teachers are more willing to implement new strategies and are more successful in doing so when they have support groups.

“By focusing specifically on instructional strategies, most teachers have been experimenting with and/or using new strategies as a result of this project.”

#### For More Information ...

Visit Alberta Education Web site—AISI Projects and Promising Practices at <http://education.alberta.ca/admin/aisi/chouse.aspx>.

## An Overview of Cross-curricular Connections AISI Projects

Project	Purpose	Description
<p><b>K–3 Literacy and Numeracy Improvement</b></p> <p style="text-align: center;">AISI #30261 <b>Cycle 3</b></p> <p style="text-align: center;">Grades K–3 1061 Students, 6 Schools</p> <p>Sturgeon School Division No. 24</p>	<p>To improve Kindergarten to Grade 3 student achievement in the core subjects with a focus on mathematics and English language arts.</p>	<p>Focus on reading across the curriculum strategies, pyramids of intervention, “21 Keys for High Performance Teaching and Learning” and “Start Now” support programs, and assessment for learning.</p>
<p><b>Exploration of Multiple Literacies through Curriculum</b></p> <p style="text-align: center;">AISI #10347 <b>Cycle 2</b></p> <p style="text-align: center;">Grades 1–9 4709 Students, 22 Schools</p> <p>Calgary School District No. 19</p>	<p>To increase student achievement by building teacher capacity in the use of multiple literacies through the inquiry process.</p>	<p>Provide professional development to build teacher capacity by engaging in the examination of multiple literacies through the inquiry process to increase student achievement.</p>
<p><b>Senior High Literacy</b></p> <p style="text-align: center;">AISI #10106 <b>Cycle 2</b></p> <p style="text-align: center;">Grades 10–12 4388 Students, 11 Schools</p> <p>Elk Island Public Schools Regional Division No. 14</p>	<p>To improve student literacy through instruction and student application of effective reading and writing strategies.</p>	<p>Provide professional development focusing on the literacy needs of high school students. Literacy skills would be implemented throughout the curriculum.</p>

## K–3 Literacy and Numeracy Improvement, Grades K–3

Sturgeon School Division No. 24, AISI Project #30261

### PROJECT OVERVIEW

#### What they did ...

- Sturgeon School Division undertook a comprehensive planning and needs analysis project that involved all stakeholders.
- The project focused on the improvement of literacy reading, writing and numeracy skills and knowledge for all K–3 students in the six participating schools.
- Staff developed pyramids of intervention within an assessment for learning (A4L), differentiated instruction (DI) and reading across the curriculum context.

#### How they did it ...

- Teachers and administration met to establish AISI project goals and identify a common focus for the project.
- Staff shared a common vision for the project and focused their primary goal on the improvement of student learning through professional development (PD) sessions.
- Major strategies included:
  - student profiling—as a major assessment for learning instruction technique to assess English language arts and mathematics needs of students in grades 1–3
  - the development and implementation of a DuFour-based pyramid of intervention strategy
  - numerous brain-based research strategies
  - a “one up–one down” model to help teachers know and understand the curriculum of their own subject/grade as well as the immediate above and below grades
  - the establishment of a Project Study Group (PSG) to implement, guide and monitor the project, to deal with measures, professional development, use of project “cause/effect” data and best practices
  - “21 Keys for High Performance Teaching and Learning” and “Start Now” programs.
- “Teachers determined ways to engage more students in the learning process by connecting with visual, auditory, and kinaesthetic learners.”

“Throughout the division, teachers created positive classroom environments, used visuals and anchor charts to help support student learning, created relevant lessons ...”

### What they learned ...

- “Highly motivated staff was committed to the implementation plan, not only because of their involvement and “ownership,” but also because they shared the belief that the project would result in improving K–3 student mathematics and ELA learning and would be a long-term building block.”
- Lead teachers have developed strong leadership skills as they shared resource information and created similar philosophies in language and mathematics.
- Using new resources has allowed teachers to stay current with educational trends, making learning for the students successful.

“Students enjoy learning in new and different ways and they are becoming more conscientious of the learning process which takes place in language and math.”

## PROMISING PRACTICES/KEY STRATEGIES

### Differentiated Instruction and Assessment for Learning

- A4L techniques to assess English language arts and mathematics needs of students in grades 1–3 included differentiated instruction strategies that were engaging, meaningful, and perceived as valuable and authentic to accommodate student needs and preferences.

### Professional Development

- Teachers collaborated through Project Study Group meetings and Professional Learning Community meetings.
  - Best practices were discussed, shared and utilized by the primary teachers.
  - A common vocabulary is used across Sturgeon School Division.

## Unexpected Delights ...

- “There is a genuine enthusiasm and renewed focus for teachers as they continue to grow as professionals. Teachers’ enthusiasm towards the profession has significantly increased, especially when practical, professional, hands-on workshop sessions occur.”
- “Celebrating our school improvement at the annual AISI symposium enabled Sturgeon teachers to recognize our success and commitment towards teaching and learning.”
  - “As we reflect upon our annual report, there is a realization of the total impact we have had as teachers towards our professionalism and our students.”
  - “As teachers, we were proud of our accomplishments for our provincial standings in the Provincial Achievement Exams, the Gates Reading Tests result scores, and the results that were tabulated through our qualitative survey questionnaires.”

## Exploration of Multiple Literacies through Curriculum, Grades 1–9

Calgary School District No. 19, AISI Project #10347

### PROJECT OVERVIEW

#### What they did ...

- Calgary School District focused this project on critical inquiry and multiple literacies. The questions underlying this project were:
  - What forms do multiple literacies take?
  - How is meaning conveyed?
- The 22 elementary and junior high schools set a number of targets, such as:
  - increased teacher awareness and use of multiple literacies through the inquiry process
  - collaborative professional development opportunities.

#### How they did it ...

- A coordinator, who was a principal, was identified and a steering committee comprised of school principals was established. This lent administrative support to the school-based projects and facilitated networking.
- The work of this project was reflected in each school’s development plan.
- Teacher capacity was built through meaningful professional development.
- The project focused on providing personally meaningful learning opportunities for teachers.
- There were two meetings each month for administrators.
  - The first meeting, “Leading for Inquiry,” focused on “how administrators could enhance the professional development of staff in adopting an inquiry stance and how to embed inquiry and multiple literacies into school renewal plans and Teacher Professional Growth Plans.”
  - The second meeting, “Inquiry into Inquiry,” focused on the inquiry process itself.
- Teachers promoted and encouraged the multiple ways that students come to understand, and the multiple forms of representing that understanding.

#### What they learned ...

- The opportunity for collegial and collaborative professional development was central to this project.
- A large percentage of teachers indicated that the project had a “significant impact” on their instructional strategies.
- “Over the course of the three years, it was discovered that multiple literacies encompasses many different areas such as technology, differentiated instruction, and adaptive and assistive technologies.”

- The utilization of experts in both critical inquiry and the integration of the arts had a huge impact on instructional strategies. In particular, working with individual teachers or groups of teachers in schools in the planning and implementing of studies was very effective.
- There was a need to assess student learning in many different ways.
- Celebrations of learning are important to students, teachers and parents.

“Students definitely felt that the projects impacted their learning in significant ways and that they were engaged in projects that allowed them to learn in different ways.”

## PROMISING PRACTICES/KEY STRATEGIES

### Collaboration

- Through collaborative planning, “teachers embarked on an inquiry that was significant to the school setting and decided what type of professional development was needed to meet their goals.”
- Bimonthly meetings of administrators were critical.
- “The project employed the services of the Galileo Network to guide our work on critical inquiry. This was done through professional development workshops for teachers and for school administrators and through on-site work with teachers in planning, implementing, and teaching inquiry units.”

### Project Management/Professional Development

- An administrator from each school was responsible for the projects within the school.
- The project coordinator was responsible for a number of tasks including:
  - organizing meetings of administrators and teachers for project-wide professional development
  - coordinating with the Galileo Educational Network
  - communicating regularly with “administrators to inform them of updates, meetings, deadlines, and professional development opportunities.”
- Professional development opportunities addressed a variety of instructional strategies including:
  - critical inquiry
  - integration of the arts
  - integration of technology.

“Opportunities were created for collaborative inquiry through study groups, mentoring, networking, site visits, coaching, conferences and other forms of dialogue.”

## Parental Involvement

- Administrators and teachers used several strategies to inform and involve parents in the project:
  - communication through newsletters and the school Web site
  - school council meetings and curriculum presentations
  - volunteer opportunities—parental involvement was evident in the use of parent volunteers helping with the projects and with the public celebrations of the projects such as mathematics fairs, art shows and student films.

## Unexpected Delights ...

- “Administrators reported that one of the greatest successes was the improvement in teacher practice that led to improvement in student achievement.”
  - Administrators were enthusiastic about both the changes they noticed at their schools and the level of staff involvement.
  - Administrators consistently reported how valuable it was to discuss leadership issues about promoting change in instructional strategies in their monthly meetings.
  - Over the course of the three years, a professional learning community of administrators developed.
- “Students indicated that they were positive and intuitive about how they learn best and the importance of the power of choice, relevance, and active involvement in enhancing their achievement. It was more up to us. The sky was our limit (elementary student).”

## Senior High Literacy, Grades 10–12

Elk Island Public Schools Regional Division No. 14, AISI Project #10106

### PROJECT OVERVIEW

#### What they did ...

- Elk Island Public Schools (EIPS) based this project on a previous successful project—“Early Literacy Initiatives in Elementary and Middle Years Literacy at the Junior High Schools.”
- Teachers of senior high core subject areas developed a common approach in teaching students to read, write and understand information in their particular content areas.
  - Research-based professional development activities that focused on increasing teacher knowledge and use of effective reading and writing strategies were developed.
- A literacy vision that addressed student achievement and teaching strategies was developed.

“This decision was based on feedback from their respective staffs who overwhelmingly saw this as a worthwhile and important endeavour.”

#### How they did it ...

- Literacy teams, including an administrator and teachers from across the subject areas, were established at each school to provide leadership and direction.
- The project was managed by a full-time consultant who worked with teachers and instructional leaders.
- Professional development was accomplished through subject-specific district meetings where teachers explored and debated new strategies and shared classroom experiences, lesson plans and student work.
- Senior high staff liaised with the elementary and junior high teachers for continuity in the literacy framework.
- The AISI literacy project established a common language.
  - Terminology and examples helped teachers and students constructively discuss strengths, weaknesses and success strategies.

#### What they learned ...

“The key to success in this project was the cultivation and nurturing of professional relationships. Demonstrating that teachers’ expertise was respected and their experience and opinions valued was of utmost importance.”

- There was a shift in year two to include sessions for Career and Technology Studies (CTS), special education, second languages, physical education and Career and Life Management (CALM), in addition to the core subjects.
  - “Teachers who attended the sessions discovered connections between literacy and their subject areas.”
  - Strategies are being transferred from subject to subject.
- “Teachers reported that teachers and students now have a common language—they can talk with each other about their thinking processes, their reading roadblocks and strategies they use to overcome them.”
- Students are engaged in their learning when they use literacy strategies.

One EIPS teacher recently summed up this pedagogical shift: “Literacy rattles around in my brain; I find myself asking ‘How am I going to get kids more engaged and involved in the texts?’ rather than ‘What comprehension questions do I need to ask?’”

## PROMISING PRACTICES/KEY STRATEGIES

### Collaboration

- Release time was available for departments to work on integrating literacy into their programs.
- The formation of literacy teams at each school helped create a literacy culture in every building.
- The workshops and subject-specific sharing sessions provided an avenue for professional discussions and networking.
- Expanding the project to include senior high staff in CTS, special education, second languages, physical education and CALM provided additional opportunities for staff to work together on a literacy focus.

### Instructional Strategies

- “By focusing specifically on instructional strategies, most teachers have been experimenting with and/or using new strategies as a result of this project.” Successful instructional strategies included the following:
  - discussion strategies such as the Discussion Web, Save the Last Word, Most Important Word and Reciprocal Teaching
  - additional strategies included literature circles, learning logs and dialogue journals, journal writing and writer’s workshop using six-trait rubrics and language.

## Professional Development

- “Central to professional development was the intention to engage in action research to tackle a few very essential questions:
  - What kind of learning do I want to see happen in my classroom?
  - What has been happening in my classroom?
  - What can educational research and best practice tell us?
  - How can I change my practice or add to it to maximize learning?”
- The distribution of professional texts, videos and magazines helped teachers reconnect with educational research and best practice.

## Leadership

- The project had the support of many stakeholders including teachers, parents, students, administrators.
- Some teachers stepped up to become teacher leaders and were running sessions at the district professional development (PD) day on extending literacy strategies.

## Unexpected Delights ...

- “Through the Literacy project, several hundred books on adolescent literacy found their way into the hands of interested professionals!”
- “The three AISI literacy projects in EIPS joined forces on an ambitious project—*EIPS Reads: A Novel Way to Open Minds*.
  - “Through this project, we attempted to reach students and parents by distributing 2800 copies of the novel *Touching Spirit Bear*, by Ben Mikaelson. The novel was easy for grade five and six students to read but also engaging enough to engage adult readers. It was our hope that through the reading and discussion of the novel, parents would find a venue to talk about reading with their children.”
  - “We provided support through newsletters, information sessions and a website containing reading tips and a forum to engage in web dialogue.”
  - The author spoke to students and parents for a week in the fall and a week in the spring, speaking to large groups of students from almost every school in the system and at six evening parent sessions. ... “*Touching Spirit Bear* and Ben Mikaelson made a significant impact on parents, kids, teachers and even board members.”
  - Some of the success stories included: nonacademic students discussing the book and reading Mikaelson’s other novels; a behaviour-improvement teacher used the novel to guide an extensive study about restorative justice, relationships and character education; a busload of seniors attended a speech by the author with students from that school and then went back to the residence to read excerpts of the novel and discuss it with the seniors; some teachers were moved to tears after hearing Mikaelson speak; copies of the novel that had circulated through the community had as many as five or six names recorded in them; parents visited the Web site and used some of the tips and discussion questions posted there.

- AISI distributed a video that features *EIPS Reads* as an example of innovation and effectiveness in reaching out to the community.
- “Elk Island is celebrating:
  - the success and publicity surrounding the *EIPS Reads* project
  - the teachers who embraced literacy and went on to present at conventions
  - the way our teachers made connections between literacy, assessment and differentiation
  - the establishment of a literacy culture in schools.”
- “But what we’d really like to celebrate is the shift that our teachers are making to become increasingly aware of the needs of their students as readers and writers. These successes are embodied in the enthusiastic responses of our teachers:
  - ‘I am now more student-centered. The students are now doing more of the work rather than me telling them the answer.’
  - ‘I now have a stronger awareness of student learning styles and needs. The strategies help me target learning challenges, get at student understanding and make text reading clearer.’
  - ‘Allowing students to share or explain the concept in their own words helps them to connect and questioning techniques move them to higher levels of thinking.’
  - ‘I think that with more focus on literacy in all departments, learning in my subject area is facilitated because the students are using strategies that, at one time, they only used in English and second language classes. I notice that students are underlining key words more on unit exams and are writing more helpful tips for themselves in their notes and on handouts.’”



# Diversity—Addressing Multiple Literacies

Some of the AISI literacy projects dealt with literacy components in very different ways and could have been included in several of the categories. The “diversity” category was created to provide an opportunity to showcase these “multiple literacy” projects.

Literacy is a complex and dynamic set of skills that allows individuals to learn and grow continuously. It is a continuum of skills and abilities ranging from the ability to speak and understand verbal instructions, to decoding symbols, to using information and communication technology to function in an increasingly technological world. Hill notes that “the classroom must be a place where literacy becomes inescapable because it is not only the passport to connecting and making sense of the world, it is ultimately key to making the world a better place” (2006, p. 392).

The plurality of literacy includes the social dimensions of literacy—not only a generic set of technical skills. The United Nations Educational, Scientific and Cultural Organization (UNESCO) states that the “plurality of literacy refers to the many ways in which literacy is employed and the many things with which it is associated in a community or society and throughout the life of an individual” (2005, p. 13). People acquire and apply literacy for a wide variety of purposes in many different situations, all of which are shaped by culture, history, language, religion and socio-economic conditions.

Students today are required to develop a range of new and important competencies that include synthesis and integration of information, and knowledge and skills beyond what was required a few years ago. The “new literacies” also encompass a broader idea about text such as media, speech, hypertext, text messaging and symbols, combined with more sophisticated ways of creating, interpreting and evaluating these texts and gaining an increasingly complex understanding of the pedagogy needed for the multiple literacies (Hasebe-Ludt, 2001).

The proliferation of technology and the explosion of information is transforming how people acquire knowledge and communicate it. No longer do we need to accumulate all the information we may need for a lifetime. Learners need the skills to find, qualify and manage the information at a particular time for a particular task. Teachers and students need to know how to analyze critically the information that we can so easily retrieve through technology.

Much of the recent literature related to literacy instruction suggests that a fundamental goal is to develop, in our students, the ability to think deeply about what they read and to express themselves accurately and expressively in a wide variety of contexts.

Fullan states that public education's new mission, "is about learning to learn, about becoming independent thinkers and learners. It is about problem solving, teamwork, knowledge of the world, adaptability and comfort in a global system of technologies, conflict and complexity. It is about the joy of learning and the pleasure and productivity of using one's learning in all facets of work and life pursuits" (2006, p. 3).

### Common Tenets

Some of the similarities identified in successful AISI projects that focused on addressing multiple literacies included the following:

#### Collaboration/Consultation

- Successful projects that explored multiple literacies involved the greater community.
- Consultation with parents led to greater success and affected cultural change. Parents became more involved in their children's learning.
- Community events and participation with community members/agencies made a significant contribution to these projects.
- Student engagement and involvement in the projects led to improved communication among students, staff and parents which, in turn, led to higher success.

#### Leadership

- The most successful projects had the hands-on involvement of district leaders, school-based administrators and central office leaders.

#### Learning Environments

- Projects that developed and enhanced learning environments in the school and within partner schools were successful in building increased understanding among students, teachers, parents and community.
- "Teacher culture is as important as student culture."
- Students in "high needs environments" were engaged and more successful when the projects acknowledged their needs and staff had strategies to address them.

### Professional Development

- School cluster teams offered support to each other as they were engaged in learning.
- “Student achievement increased because the teachers understood that multiple literacies is more than just reading and writing and that other literacies are valid vehicles in strengthening reading and writing skills.”

#### For More Information ...

Visit Alberta Education Web site—AISI Projects and Promising Practices at <http://education.alberta.ca/admin/aisi/chouse.aspx>.

## An Overview of Multiple Literacies AISI Projects

Project	Purpose	Description
<p><b>Multiple Literacies within the Learning Village</b></p> <p style="text-align: center;">AISI #10481 Cycle 2</p> <p style="text-align: center;">Grades K–6 4650 Students, 17 Schools</p> <p>Calgary School District No. 19</p>	<p>To enhance student achievement and the ability to learn and express themselves through multiple forms of literacy.</p>	<p>Establish a collaborative learning community to build teacher capacity focusing on literacy development to enhance student learning and achievement.</p>
<p><b>Meeting Diverse Student Needs</b></p> <p style="text-align: center;">AISI #30530 Cycle 3</p> <p style="text-align: center;">Grades K–9 34 000 Students, 88 Schools</p> <p>Calgary Roman Catholic Separate School District No. 1</p>	<p>To improve student achievement in the areas of literacy and numeracy with a focus on targeted groups such as English as a Second Language (ESL), gifted and talented, students with special education needs and French immersion.</p>	<p>Utilize the strategic practices of differentiated instruction and assessment for learning to provide the foundation for a wide variety of changes in instructional practices that will result in measurable improvement in student performance. Build teacher capacity through job-embedded professional development, mentoring, coaching, modelling of effective practices and collaborative inquiry.</p>
<p><b>ESL—Access to Academic English</b></p> <p style="text-align: center;">AISI #30057 Cycle 3</p> <p style="text-align: center;">Grades 5–12 1000 Students, 17 Schools</p> <p>Edmonton Catholic Separate School District No. 7</p>	<p>To improve the academic competency of English language learners (ELLs).</p>	<p>Support students with strategic social, linguistic and cultural approaches to fulfill their academic potential and assist teachers to be better prepared to meet the complex diverse needs of these language learners through informed and directed instructional planning, effective supports and increased cultural competency.</p>

## Multiple Literacies within the Learning Village, Grades K–6

Calgary School District No. 19, AISI Project #10481

### PROJECT OVERVIEW

#### What they did ...

- The project schools in Calgary School District used the “Learning Village” concept which “represents a unique way of working in which parents, community members and service providers will work collaboratively with educators to serve the needs of children and youth ...”
- This project was based on the vision of the Learning Village and the term “multiple literacies.”
- The group of schools formed strong partnerships with community agencies and services.
- The schools were used as a key point of contact within the community, and were positioned to link families with health and human services.
- They built on an existing three-year partnership with the Calgary Children’s Initiative.
- Teachers learned approaches to learning from a multiple literacies perspective, incorporating the “skills of literacy” (such as guided reading and balanced literacy) into the larger context of multiple literacies.

“Many of the programs, services, and learning opportunities and expertise nested within The Learning Village relate to literacy development in its broadest sense, including a Family Literacy Centre, a preschool, recreation and leisure opportunities, a computer lab, Mini University, translation services, and The Play Institute.”

#### How they did it ...

- The schools divided themselves up into five clusters consisting of two to six schools in each cluster. The clusters met regularly to study a topic of choice with their colleagues.
- A sampling of the project activities follows.
  - Students had opportunities to work with visiting artists and artists in residence.
  - Staff were involved in site visits, mentoring and/or study groups.
  - Students engaged in peer coaching and peer conferences.
  - Workshops were provided to raise awareness about family literacy and to enhance family literacy through a variety of activities.
- Staff focused on Alberta Education’s *Focus on Inquiry* to develop the “skills of literacy.”

- Program teachers and guest “experts” taught a variety of workshops that:
  - were hands-on—teachers were given time to play and learn
  - gave some affirmation that what teachers were doing in their classes was valid
  - were linked to other curricular areas
  - led to changes in practice
  - were linked to student learning.
- The workshops were designed to build teachers’ skills and confidence in incorporating a variety of skills into their classroom practice.
- Program teachers provided the modelling for teachers right in their classrooms. “It is like having a workshop in my classroom over time with my students.” If a teacher said, “This would never work with my children,” the program teacher was able to model how this could and did work with those children.
- Images of Hope
  - In each of the three Family Places, art galleries were set up which featured motifs, collages, videos, photographs and art work in a variety of media. These works were accompanied by the children’s writing to represent hope.

“It was imperative that we gave teachers more than one-shot professional development opportunities so they could build skills and confidence to teach their students these skills.”

### What they learned ...

- Student learning and increased achievement has taken place.
  - “Our schools are extremely complex with some classes having as many as 95% of students having a learning or behavioural code.”
  - “Student achievement increased because the teachers understood that multiple literacies is more than just reading and writing and that other literacies are valid vehicles in strengthening reading and writing skills.”
- Students improved their learning because they were more engaged.
- Cluster meetings provided an opportunity for teachers to study a topic of their choice with colleagues with similar student populations, to learn from each other and to support each other. Many said that it has impacted their practice.
- Through working with the program teachers and guest speakers from Canada and the US, teachers have learned and are using a wider array of assessment tools.
  - Teachers had time to discuss their new learning and then try these strategies in their classrooms.

- “Teachers are using more of a ‘photo album’ approach versus a ‘snapshot’ for assessment—they are learning how to maximize the growth of individual learners.”
- These assessment practices and strategies “changed the way teachers approached curriculum and assessment as they honoured how children learn and express their learning.”
- Parents became more engaged in their children’s learning and participated in school activities such as family evening events.
- The Artists-in-Residence program was a huge success. Students and teachers learned how to express their knowledge through a multitude of literacies and media, including visual art, performing art, technology and music.
- School staff learned that making sure students are successful learners cannot be accomplished in isolation.

“I really enjoyed the art portion of our AISI project. Both the teachers and the kids were able to experience hands on art that was related to the curriculum. I was able to see the students’ interest in, and knowledge about birds blossom because the art they experienced prompted many questions in their minds. They took on the responsibility of finding things out on their own because they were so interested.”

“Through the Calgary Learning Village Collaborative there has been an increase of collaborative efforts of agencies to meet not only the academic needs (our main work as educators) but also the social, emotional and physical needs (supported by agencies’ after school programs and family counselling).”

“These connections are beneficial for our students’ learning and building family relationships. It takes a village to raise a child.”

- Comments from all staffs indicated that the resiliency and hope work needs to be continuous. “The program teacher made a significant contribution to the resiliency in our school staff, students, and parents. He caused us to examine the factors that contribute to resiliency.”

## PROMISING PRACTICES/KEY STRATEGIES

### Collaboration/Involvement of Parents and Community

- The Learning Village concept involved parents, community members and service providers working collaboratively with educators.
  - “The Calgary Learning Village Collaborative (CLVC) is a project with an amazing vision that has brought fifteen agencies together to offer free or low cost programs to meet social, emotional, and physical needs of students and their families.”
- Parent workshops presented various aspects of the Learning Village and offered parents the opportunity to establish supportive networks.

### Project Leadership

- A committee of elementary principals was involved directly in writing a first draft of this project.
  - An Advisory Committee of elementary principals met on a regular basis to guide and oversee the project.

### Professional Development

- Teachers found that the variety of professional development workshops supported and extended their practice.
- Principals received three workshops on hope and resiliency and seven school staffs worked with the program teacher.

### Unexpected Delights ...

- “Our schools have the highest number of ESL students, the highest number of coded children, and the highest number of low-income families. With all of these challenges, the principals and staff have very high expectations. The children have lived up and exceeded these expectations. Each school was intentional in their promotion of multiple literacies. Each school was unique in what they did and each should be celebrated.” Following are some stories and reflections:
  - “My Grade 1–2 class worked with a filmmaker to retell the story the Wizard of Oz, which we read together. Many people are surprised about how much the students are able to do at their age. Some of them began to read the novel on their own after making the movie. Erin worked with a filmmaker and these students produced a film from each class. The students learned to read, write, film, and collaborate to produce high quality films and messages that were connected to curriculum.”
  - “The resiliency program teacher was an amazing asset to our school.” Patrick worked with the students, through writing, reading, drawing, producing, put on a play, ‘Why Belong in Forest Lawn?’ The students’ understanding and appreciation of their community in this production was commendable. The representative from the BRZ—a community based agency—commented as she left, ‘This is why I work in this area: awesome kids, awesome families and awesome school staffs who are here for children’.”

- At Valley View, students looked at the big question—“Who Cares?” “They used this question through the lens of all curriculum areas and social issues. The principal wrote this in her weekly newsletter: ‘This year, our school community has done an outstanding job of inquiring into ‘Who Cares?’ Our students have come to understand the complexities of citizenship, stewardship and leadership. They have been privy to a curriculum that has been implemented from a multiple literacies perspective. They have had the privilege of working with teachers and staff that understand the importance of being literate beyond the skills of reading and writing. ... Their gifts and talents have been acknowledged, as their mentors helped them to overcome their challenges, by honoring the strengths they have brought to the learning environment.’”
- Participant comments indicated that the professional development workshops were very successful. The reasons given included:
  - “The workshops were hands-on, teachers were given time to play and learn.”
  - “Reaffirms many of my beliefs but gives me concrete problems that I can work with the children. Now I am more confident I am doing the right thing.”
  - “It has given me the confidence to teach the way I would want to learn—I’m excited the kids have more of a chance to be excited.”
  - “I learned how easy it is to make curriculum connections to math or science, social and ELA.”
- Principals were asked to reflect on what surprised them. These are a few of the comments:
  - “I feel over this last year we have enabled staff options to learn in a variety of ways—it became, in a sense, a multiple literacies approach for staff, from journaling, to study groups, from hands-on kinesthetic activities to reflection pausing time to think differently about their practice.”
  - “Students who were not typically risk takers stepped out of their comfort zone to create.”
  - “Over the past three years, the AISI program has been of tremendous value to my classes. The students have been exposed to many artistic mediums that traditionally are not utilized in schools. The program has allowed me to collaborate and learn from a multitude of talented artists. The AISI program allows students in high needs environments to thrive and learn and experience that which they would normally not even consider.”

## Meeting Diverse Student Needs, Grades K–9

Calgary Roman Catholic Separate School District No. 1, AISI Project #30530

### PROJECT OVERVIEW

#### What they did ...

- This project focused on meeting diverse student needs through differentiated instruction and assessment for learning, concentrating on literacy and numeracy.
- The structure of the project was innovative in terms of the conceptual construct, framework, research and working components.
  - Schools determined their own strategies based on local needs.
  - The project infused differentiated instruction and assessment for learning.

#### How they did it ...

- Each school was allocated a 0.5 full-time equivalent (FTE) AISI project teacher to “support and champion the various components of the project such as professional development, data collection, research and project development (coordination and project management).”
- A top-down and bottom-up approach was used to ensure alignment with the district priority of maximizing individual student achievement.
- Four cohort groups were established to focus on areas such as assistive technology, numeracy and literacy.
  - For example, an ESL cohort of 10 schools focused on building the capacity of teachers to meet the instructional needs of second language learners better.

#### What they learned ...

- “The establishment of the four cohort groups allowed schools to network, share best practice based on specific outcomes, and a platform to brainstorm new ideas. The format allowed for problem solving and broadening perspectives.”
- “The project design allowed schools to be more directly involved with the direction of their individual projects, and thus, more focused on local and unique needs.”
- “The use of data in more depth to inform practice has been a challenging endeavor for some schools.”

## PROMISING PRACTICES/KEY STRATEGIES

### Professional Development

- Regular meetings of AISI project teachers, school-based administration and district personnel were held.
- “The selection of a broad range of professional resources on instructional strategies, assessment and reporting practices created district-wide opportunities for individuals to review current research and implement effective practice in these areas.”
- A variety of successful professional development strategies included:
  - mentorship and coaching
  - coordinated/aligned professional development
  - networking sessions of shared best practice to support collaborative inquiry.

### Learning Strategies

- A sampling of key learning strategies to increase student engagement and achievement follows:
  - balanced literacy and numeracy (subject specific and content areas)
  - setting criteria and developing rubrics with students
  - use of questioning techniques
  - use of descriptive feedback
  - use of student portfolios
  - self-assessment and peer-assessment strategies
  - metacognition, reflection and journaling
  - problem solving
  - inquiry learning strategies
  - critical and creative thinking skills
  - authentic assessment.

### Student Assessment

- Student assessment and differentiated instructional strategies were the focus of the project.
- “The development of specific tools like the ESL Structured Assessment Portfolio has allowed teachers with ESL students to use common benchmarks and use the tool to effectively meet their learning needs.”

### Unexpected Delights ...

- “We discovered that if we invite a school-based administrator to come with the school’s AISI teacher to meetings, many will come. This has been very powerful in terms of the discussion and alignment of messages.”
- “The involvement of different leaders in District, from the Chief Superintendent to teachers, has brought about tremendous alignment.”
- “The integration of the project outcomes into school plans has become significant.
- “The rapid development of teacher leaders in many of the schools has been synergistic. They have come to really see this as their project. “
- “The project has contributed to distributive leadership across the District.”

## ESL—Access to Academic English, Grades 5–12

Edmonton Catholic Separate School District No. 7, AISI Project #30057

### PROJECT OVERVIEW

#### What they did ...

- Cultural communities, immigrant parents, support agencies and immigrant service agencies provided input into the project. They “identified the need for immigrant youth to acquire the necessary skills needed to develop, set and maintain educational goals.”
- Edmonton Catholic Separate School District looked at educational program planning in terms of student underachievement during “the transition years from junior to senior high.”
- The project also addressed another concern that was identified by stakeholder groups—“the increase in second language learners who attend our schools.”
- The school community developed an intercultural consciousness.
- English language learners (ELLs) were identified as the target student group.
- This project was also designed to help teachers meet the complex diverse needs of these language learners in the following ways:
  - through informed and directed instructional planning
  - through effective supports to ensure optimal program placement and success in transitional years
  - through increased cultural competency.
- Interaction among the school, community and cultural groups was increased.

#### How they did it ...

- A preliminary consultation process included schools, teachers, parents, students, immigrant-serving agencies, post-secondary institutions and district administrators.
- Members of the AISI ESL project steering committee made connections among their varied fields of expertise to pinpoint strengths and weaknesses in the delivery of related services to ESL students and their families.

“The meaningful input from these stakeholders produced substantial evidence for the need to submit this proposal with its focus on secondary ESL students.”

- The project steering committee consisted of members representing high school principals; elementary assistant principals; teachers from Divisions 1, 2 and 3; immigrant parents; ESL liaison workers; Catholic Social Services Immigrant Settlement director; the Edmonton Mennonite Newcomer Centre director; and the district principal of International Education.
- “Schools received guidance to build culturally responsive classrooms that teach all students to respect and value the cultural, linguistic and ethnic diversity represented by the student population.”
- A personal education plan, a language proficiency blueprint and a career portfolio were designed to be used by students as a vehicle to inform individual goal setting and increase student ownership for learning.
- Parents were provided with knowledge about their children’s schooling through information sessions.

### What they learned ...

“Part of becoming a more culturally appropriate education system is to create a culture in schools that is appropriate and supportive of one another as we climb the learning curve for culturally responsive teaching and learning.”

“As the demographics of our schools change, teachers are becoming proactive in helping all students understand each other’s world views, cultures, traditions and celebrations so that respect is fostered between all groups and conflict is significantly reduced.”

- “Project participants are recognizing the importance of the use of culturally relevant resources in all aspects of curriculum in order to empower culturally diverse students in their access to academic achievement.”
- “Participants sometimes felt uncomfortable and defensive when addressing issues of cultural congruence, racism and prejudice. However, these are emotions that are considered normal when one enters this learning continuum.”
- Through professional development (PD) sessions, in collaboration with secondary mathematics and language arts consultants, teachers acquired and are using strategies that help students access content more effectively.
- The parent workshops were well attended and “overwhelmingly positive feedback was given about the need for such sessions.”
- There were challenges in this project as noted in the following sampling:
  - “Everything presented (in the PD session) was great but, again, the time factor of unpacking (good resources) back at school was too difficult.”

- “Parents are not identifying their children as ESL students because they are afraid their children will be labelled or not given the same opportunities as others.”
- “Previous experience with ESL (lack of support) shied some parents away from wanting any support for their children.”

## PROMISING PRACTICES/KEY STRATEGIES

### Learning Environments

- Teachers were expected to be proactive in helping all students understand one another’s worldviews, cultures, traditions and celebrations in order to foster respect among all groups and to reduce conflict.
  - They explored culturally competent teaching practice that provided support, sensitivity and understanding for their diverse learners to achieve academically and to adjust socially.
- It was believed that “culturally responsive education practices can help establish a learning environment that promotes success for all students.”

### Professional Development

- Teachers were supported as they provided systematic, intentional vocabulary and language teaching in targeted content areas through scaffolds and the use of grade-appropriate content outcomes.
- Cultural competency sessions were held to help teachers understand and recognize “their own culture” first, “to see how it shapes the lens through which they view the world and the impact that has on their teaching.”
- Teachers engaged in professional dialogue about what constitutes a culturally responsive learning environment, and were encouraged to find ways to change practice in their own unique classrooms and schools.

### Consultation/Collaboration

- “The AISI project was the instrument and the catalyst that created opportunities for the varied stakeholders to meet and to take a more holistic approach than was formerly possible.”
  - Other stakeholders and internal supporters included post-secondary institutions, the director of Learning Support Services; the principal of International Education; and the secondary mathematics, science and English language arts consultants from Learning Support Services in Edmonton Catholic Schools.
- Parents were involved in the process through parent sessions which were held to “build parent awareness of academic expectations, transitions into secondary and post-secondary, and ways to support their children.”

## Unexpected Delights ...

- “The targets of levels of English language proficiency increased because more mainstream classroom teachers are now equipped to use purposeful classroom instruction to move the development of the students’ English language proficiency forward.”
- The achievement target in Grade 9 English language arts was exceeded by 10.5%.
  - “In six years of tracking the ESL junior high district PAT results, this is the first time that such a marked increase has been recorded.”
- An unanticipated number of schools requested on-site PD sessions on cultural competency.
  - “The knowledge gained from the PD preparation for Cultural Competency workshops is being used in the development of an additional pamphlet on this topic in the ESL specialist Council (ESLC) of the Alberta Teachers’ Association series Understanding ESL Learners.”
- “The Action Group for Racial Equity in Education (AGREE) committee requested an overview of the ESL AISI project to their committee members in March 2007. This committee is part of a working group with the Northern Alberta Alliance on Race Relations (NAARR) that focuses on cultural competence to promote policy change, professional development, and equitable hiring practices in the educational sector.”
- An overview of this ESL project was presented to many groups, including the Alberta Education Advisory Committee, the consulting staff at ECS Learning Support Services, and “a visiting delegation of educators from Red Deer Catholic Schools who came on a fact-finding tour to see various models of ESL program delivery in our district.”
- “This project was the recipient of The Alberta ACSD Innovative Teaching Practices Award 2007 from the Edmonton Regional ASCD.”

# Professional Development

Most of the AISI literacy projects have a professional development component. The literacy projects that are being showcased explicitly focused on using professional development of their staff in order to facilitate the development of literacy competencies in their students. Professional development expands and deepens knowledge, creates favourable conditions for learning and builds relationships among staff. Professional development is seen as a powerful means for improving student achievement and learning.

Successful AISI projects that focused on professional development had these common characteristics:

- regularly scheduled, job-embedded time for teacher collaboration
- a common culture of action research and shared inquiry
- significant leadership support at the school and district levels
- empowerment of participants and ongoing professional growth of teachers
- a clear and shared focus on the goal of student learning.

In addition, these projects created a common vision or focus for staff through shared language, research, activities and experiences. Staff recognized the need to balance the efficiencies of centralization with the unique contexts and needs of individual schools and teachers. Thinking of professional development as a tool to improve student learning and embedding collaborative professional development practices requires a fundamental shift in thinking about teaching and learning. Positive change takes time.

There is no one-size-fits-all professional development plan, however the staff involved with these AISI projects noted that the success of a project depended on how effectively information and knowledge were shared. All successful AISI projects used a variety of strategies to monitor the effectiveness of their initiatives and to ensure that the projects remained accountable and focused. However, it must also be noted that some of the most dramatic improvements to emerge from collaborative professional development were the most difficult to quantify.

## Common Tenets

Some of the similarities identified in successful AISI projects that focused on professional development included the following:

### Professional Development

- “Teachers were taught critical thinking skills and encouraged to use these skills—to discuss, interpret, reflect and deliberate—with their students. There was ongoing support for planning and implementing projects.”

- A variety of strategies was used with teachers, including workshops, interschool visits, professional reading, lead teachers and development of professional learning communities.
- Peer coaching and mentoring helped teachers develop new skills and build the confidence required for classroom implementation.

### **Project Management**

- Projects that involved the whole school or multiple schools in the district required a collaborative project management team.
- The support and involvement of administrators was critical to project success.
- Since most of the projects based on professional development needs related these to student learning needs, there was usually “complete buy-in from staff and administration.”

### **Student Learning**

- Professional development activities that focused on student success were more successful when students were directly involved.
  - “Students created evaluation criteria, set new goals and reflected upon the process that they were undertaking.”

### **Data Collection**

- Many projects used a wide variety of data collection and did not rely on one specific test or survey. Data collection strategies included teachers’ anecdotal notes, journaling; professional learning communities (PLC) meeting notes; visits by the AISI coordinator; success stories, pictures, student samples; interviews with targeted students, teachers and administrators; and annual surveying of parents, teachers and students.

### **For More Information ...**

Visit Alberta Education Web site—AISI Projects and Promising Practices at <http://education.alberta.ca/admin/aisi/chouse.aspx>.

## An Overview of Professional Development AISI Projects

Project	Purpose	Description
<p><b>Linking Literacy and Math</b></p> <p style="text-align: center;">AISI #30071 Cycle 3</p> <p style="text-align: center;">Grades K–5 270 Students, 1 School</p> <p>Lethbridge School District No. 51</p>	<p>To link numeracy with literacy and improve student achievement in these areas.</p>	<p>Explore specific practices that connect numeracy and literacy, incorporate technology to enhance the integration of information and communication technologies (ICT) outcomes, collect and implement numeracy-based literature and incorporate balanced literacy into programming.</p>
<p><b>Inquiry-based Learning</b></p> <p style="text-align: center;">AISI #30213 Cycle 3</p> <p style="text-align: center;">Grades 1–6 774 Students, 2 Schools</p> <p>Christ the Redeemer Catholic Separate Regional Division No. 3</p>	<p>To increase student achievement in social studies and language arts.</p>	<p>Utilize inquiry-based learning to deepen student understanding of the learning outcomes and to increase opportunities for students to construct new knowledge, based on their interests and life experiences through the use of specific strategies for problem solving, collaborative research, media literacy and technology.</p>
<p><b>Numeracy K–9</b></p> <p style="text-align: center;">AISI #30047 Cycle 3</p> <p style="text-align: center;">Grades K–9 2800 Students, 14 Schools</p> <p>Northern Gateway Regional Division No. 10</p>	<p>To improve student learning and specifically increase student achievement in K–9 numeracy.</p>	<p>Differentiate instruction and assessment strategies to enrich K–9 students’ numeracy skills. Build teacher capacity with the support of professional mathematics materials and implementation of professional learning communities and collaborative teams.</p>
<p><b>Student Engagement, Assessment and Wellness</b></p> <p style="text-align: center;">AISI #30095 Cycle 3</p> <p style="text-align: center;">Grades pre-K–12 3433 Students, 35 Schools</p> <p>Prairie Rose School Division No. 8</p>	<p>To improve student learning and achievement in literacy and numeracy.</p>	<p>Utilize the professional learning community vehicle to investigate the connections between achievement and student engagement.</p>

## Linking Literacy and Math, Grades K–5

Lethbridge School District No. 51; AISI Project #30071

### PROJECT OVERVIEW

#### What they did ...

The staff at Park Meadows School had previously focused on literacy, multiple intelligences and mathematics as discrete topics. Teachers linked numeracy with literacy to expand and link previous knowledge.

#### How they did it ...

- Professional development involved the entire staff.
- Teachers worked in divisions or teams to implement the new practices into their day-to-day teaching.
- Staff developed a common language for mathematics.
- Staff collected and implemented numeracy-based literature, incorporated balanced literacy into the programming, and shared and collaborated with other schools dealing with numeracy and/or literacy.
- Students were engaged in the project through school-wide awareness activities by showcasing their new and different learning projects.

#### What they learned ...

- “We realized that our project proposal was a bit too broad, so that when we focused just on math vocabulary and the literacy connection, we were able to be more successful.”
- Students were “consistently engaged in their learning when SMART Boards, Proximas, virtual math manipulatives and interactive Web sites were used.”
- The AISI time given for grade-level team building was invaluable.
- The school-based assessment instruments that “measured formative and summative achievement of students was invaluable in determining growth and in helping diagnose needs for further instruction.”

“We have created a rich culture of math in our school. In the upcoming years we will continue (to build on this project) which we know will be a sustainable practice in our school.”

## PROMISING PRACTICES/KEY STRATEGIES

### Use of Technology

- Interactive whiteboards, virtual manipulatives and interactive Web sites were added to mathematics instruction.
- Math Trek educational software was used by the entire school along with SMART Board interactive whiteboards, interactive Web sites and Proxima projectors.

### Professional Development

- Most of the activities were school-wide and crossgrouped.
- “Having a school-wide math vocabulary provided a very clear direction for activities, and students had a solid understanding of the practicality of math in everyday situations.”
- Staff built a library shelf with designated story/picture books on mathematics-related themes.

### Student Learning

- Students created portfolios to show formative evidence of growth, “which was valuable for the students, their parents and the teachers.”
- There were hallway displays of student mathematics activities and assignments for parents and the community to see.

### Involvement of Parents and Community

- The monthly newsletter contained an “AISI Corner”; the corner was also on the school Web site.
- A family bingo evening was very well attended by parents and community celebrities.
- Technology assistant created school-wide screensavers from photographs of students’ mathematics work.

## Unexpected Delights ...

- “We were very pleasantly motivated and surprised by how this project has positively affected student learning and changed our teaching. We have learned to never assume that students understand the vocabulary before we begin to explore a new math strand.”
- “The knowledge of math vocabulary and how the students are already applying this to their understanding of math has been very motivating for both staff and students. We had no idea that something so simple as the understanding of vocabulary by the use of a word wall would clarify the learning process so well. Students are able to more easily articulate their math learning/understanding.”
- “Our staff is well-versed in technology and committed to its use. This made a difference in the achievement of our kids as it provided a greater variety of avenues to address outcomes.”
- “We have acquired a wide array of books that contain math themes. We were surprised by how many are actually available. Teachers found these to be a valuable resource.”

## Inquiry-based Learning, Grades 1–6

Christ the Redeemer Catholic Separate Regional Division No. 3;  
AISI Project #30213

### PROJECT OVERVIEW

#### What they did ...

- Christ the Redeemer developed this project to increase student achievement through inquiry-based learning in the new social studies program and in language arts.
- Staff participated in professional development activities that focused on ways to “deepen student understanding of the learning outcomes and to increase opportunities for students to construct new knowledge based on their interests and life.”

#### How they did it ...

- Strategies used included problem solving, collaborative research, media literacy and the critical use of technology.
- Teachers were supported in building a culture of inquiry where inquiry-based practices become an instructional priority.
- Project team members included an expert teacher to mentor staff and coordinate professional development opportunities, team leaders, staff, the AISI coordinator and the division’s professional development (PD) council.

#### What they learned ...

- “Shared leadership was critical.”
- “Teachers reflected, listened to other teachers, engaged in interschool discussions with administration and lead teachers. This was the most powerful strategy we used this Cycle.”
- There was a high level of student engagement and enthusiasm.
- “The lead teachers had overestimated the staff’s commitment to and knowledge of the inquiry process. Therefore, a three-year plan was developed focusing on building staff capacity and knowledge in the inquiry project process. Inquiry projects were broken down in order to focus on specific strategies.”
- “Working on a project that is authentic and meeting the needs of our staff and students was paramount to our success this year.”
- “According to teachers surveyed, 100% of teachers felt they understand the inquiry process.”

## PROMISING PRACTICES/KEY STRATEGIES

### Professional Development

- “Teachers were taught critical thinking skills and encouraged to use these skills—to discuss, interpret, reflect and deliberate—with their students.”
- Various strategies were used with teachers, including workshops, interschool visits, professional reading, lead teachers and mentorship.

“Teachers moved away from recall of knowledge to higher-level thinking, using such strategies as: U-shaped debates, curricular-based research assignments, deconstructing pictures.”

### Project Management

- The division AISI team involved administrators in selecting project topics.
  - A full-day administrators’ workshop was provided by the AISI team and the University partner; it outlined project possibilities, sustainability and lessons learned in Cycle 1 and Cycle 2.
  - Ongoing workshops were held throughout Cycles 1, 2 and 3.
- Grade-level teams, AISI team leaders, teachers and administrators were provided with time throughout the year to work with staff and the expert.

### Student Learning

- Teachers and students designed rubrics for student projects.
- Students created evaluation criteria, set new goals and reflected upon the process that they were undertaking.
- “Self assessment tools were an important part of each inquiry project. Students used technology in learning inquiry-based skills.”

### Unexpected Delights ...

- Staff developed strong professional links between the two schools in the project.
- “Shared leadership evolved much more quickly than anticipated.”
- “Even though much of the PD and guest specialists focused on social studies, inquiry learning across all curricula was evident.”
- “At the division level: AISI has become one of the primary avenues for teacher learning and growth. AISI is focused and very successful.”
- “The grassroots approach to project proposals and operation is profoundly meaningful to individual schools and to our district.”

## Numeracy K–9, Grades K–9

Northern Gateway Regional Division No. 10, AISI Project #30047

### PROJECT OVERVIEW

#### What they did ...

- Staff in 14 K–9 schools in Northern Gateway Regional Division participated in professional development activities designed to help teachers:
  - develop a clear understanding of how students acquire mathematical knowledge and skills
  - identify and apply best teaching practices in mathematics
  - be confident in their own understanding of mathematics learning.

#### How they did it ...

- Division facilitators offered teachers support in building their capacity as teachers of mathematics.
- Staff implemented professional learning communities and collaborative teams.

“Staff developed knowledge and pedagogy to make authentic professional decisions about teaching mathematics as students develop through the developmental stages of learning.”

“The work we are doing with our AISI project directly aligns with successful implementation of the Alberta programs of study and the philosophy behind the work of the project matches the philosophy of our programs of study. Teachers are always asked to relate what we are doing to the expectations of the programs of study.”

- “Staff used diagnostic and formative assessment, differentiated learning activities and focus questions to facilitate math learning.”
- Teacher success was measured “through a variety of qualitative methods including surveys, staff meetings, interviews, anecdotal comments.”

#### What they learned ...

- “Clear communication and commitment across the division was critical. The project was clearly supported by division goals and the project was rooted in research and best practice.”
- Developing more strategies based on Gardner’s multiple intelligences theory, flexible instruction groups and tiered assignments increased student engagement in their learning.
- Increased knowledge and use of videoconferencing supported the AISI project through the harsh winter months when long-distance travel was not possible.

## PROMISING PRACTICES/KEY STRATEGIES

### Collaboration

- A steering committee, consisting of division representatives, administrators, teachers and parents, was established “to review results from Cycles 1 and 2 of the project, annual education results report, district annual surveys, planning documents, provincial achievement test results and diploma results.”
- “In addition to parent representation on the Steering Committee, each parent council of every school in the division was presented an overview of AISI including its goals and underlying philosophy.”
- “Parents had opportunity to ask questions and share thoughts on the planning process for Cycle 3. It was clear that parent and community involvement would be an important element in the division’s AISI projects.”

### Project Management/Professional Development

- Professional learning communities and collaborative teams were formed at the school level.
- Administrators were in-serviced on what the teachers were learning and provided support to the project.
- The divisional AISI coordinator oversaw the project, visited schools, acted as a resource person, assisted in data collection and monitored the progress.

“We are providing time for teachers to embed what they learn into their practice. The intent is that the best practice becomes everyday practice. We are supporting our teachers by supporting our administrators as instructional leaders. Our commitment as a division to ‘Curriculum, Instruction and Assessment’ is becoming common language.”

### Unexpected Delights ...

- “The focus group conversations have provided data beyond the focus of AISI. The information is valuable for student engagement in general.”
- “The students took a more active role in their learning when they were encouraged to communicate the process clearly and in different ways. The focus was on the student and the learning process and not just the answer at the end of their work.”

## Student Engagement, Assessment and Wellness, Grades pre-K–12

Prairie Rose School Division No. 8, AISI Project #30095

### PROJECT OVERVIEW

#### What they did ...

- Thirty-five schools in Prairie Rose School Division focused on student learning and achievement.
- Professional development activities dealing with literacy, numeracy and student wellness were developed.
- Professional learning communities were used to “investigate the connections between achievement and student engagement, assessment and student interventions.”
- Staff focused on the processes of student instructional improvements and embedded technology.
- Teachers used technology integration.
- “Student wellness was supported through the improved climate of character and citizenship education and intervention strategies.”

#### How they did it ...

- Schools designed and developed individual school projects where enhanced classroom practices would encourage student learning.
- The assistant superintendent took the responsibility for the overall implementation of the project and worked with various stakeholders—principals, Council of School Councils, AISI Steering Committee, professional development (PD) executive, parents.
- Staff:
  - identified best practices in student instruction
  - identified student interventions—academic, behavioural, social
  - integrated interactive whiteboard and videoconferencing strategies
  - used video production techniques with curriculum materials
  - developed character and citizenship education programs.

#### What they learned ...

“There are high percentages of students in the district who feel ‘they are part of a safe and caring culture.’ The character and citizenship components are gaining momentum.”

- Using technology appropriately is beneficial to both teacher and student engagement.
- “There was some AISI coordinator isolation and some isolation in some of the small schools.”

- There was an adjustment to increase collaboration among AISI coordinators through weekly meetings.
- “The sharing of promising practices sessions by the AISI coordinators via videoconferencing was designed to increase the involvement of staff in small schools.”

## PROMISING PRACTICES/KEY STRATEGIES

### Project Management/Collaboration

- Two division project leaders were seconded to the AISI team (AISI coordinators, AISI lead teachers, AISI administrator) to assist with the implementation.
- Regular meetings were held with special education staff and technology education staff as well as members of the communities.
- A new Professional Learning Council was formed in the division, drawing from the PL Executive and volunteers from each school.
  - The council met and hosted Professional Learning Council meetings.
  - Costs of the council were shared among the division, AISI and the Alberta Teachers’ Association (ATA).
  - “A clear direction for sustained professional learning included the development of a framework and a professional learning handbook.”

### Professional Development

- Staff researched and implemented best practices in: literacy, literacy resources, assessment, differentiated instruction, numeracy, numeracy resources, student learning.
- Professional development communities were developed and/or established in reading communities and in the writing process.
- “Much of the effort of this project is dedicated to models that allow sustained professional development to reach each and every classroom teacher.”

## Unexpected Delights ...

- “Many concepts that formerly were quite disjointed are now coming together. The dots are becoming more connected.”
  - It is difficult to know whether this was “a result of engagement in curriculum, student instruction, professional learning, technology, assessment, student interventions, student wellness or AISI.”
  - “These concepts are now much more embedded into the culture of Prairie Rose.”
- At one junior high school, the “capacity of junior high students to take on leadership roles was greatly improved as a result of the Developing Leadership in All Students strategy.”
- One school, working on the SMART Board and videoconferencing strategy, produced a DVD notebook of SMART Board science lessons. “This was distributed to all schools through the SMART Board lesson folder on the district e-mail server.”
  - The Science teachers met on a division PD day “to see the potential of this strategy for themselves. ... There is a commitment from many teachers to get together regularly through videoconferencing in order to expand and improve these SMART Board lessons.”
- One school, working on the Character Education Grows strategy, “took their project into the community by submitting pictures to the weekly local newspaper, developing “business cards” for parents to hand out, sending discussion fridge magnets home so parents could review what was learned at school with their children, creating a journal of pictures throughout the project.”
- “Watching students become engaged and take ownership of the ‘Productions’ strategy was very rewarding.”
  - “Two students have benefited from the project ... by pursuing careers in music and acting as a result of their participation.”
  - “A DVD was produced for an uncommunicative learning-disabled student; a video of the student was sent to New York in request of special assistance for the student.”



# Technology/Digital Literacy

Many of the AISI literacy projects focused on the use of technology. Digital literacy:

- includes information and communication technology (ICT) skills as an integral part of literacy
- includes not only the mastery of technical skills but also the ability to use critical and cognitive skills, both with print and multimedia texts.

The International ICT Literacy Panel defined ICT literacy as “using digital technology, communications tools, and/or networks to access, manage, integrate, evaluate, and create information in order to function in a knowledge society” (2007, p. 2).

The literacies considered most relevant, according to recent research, are the ability to read a range of print, oral, visual and multimedia texts, to master the new and evolving technologies, to manage information and to engage critically with media and other texts.

One of the key characteristics of the post-industrial 21<sup>st</sup> century is that information is abundant and intensive. Students are faced with diverse information sources—in their studies, in their homes, in their workplaces and in their everyday lives. The average teenager today can access more information through a cell phone than we ever could have imagined a few short years ago. Information is available through community resources, special interest organizations, manufacturers and service providers, media, libraries, schools and the Internet. With the proliferation of information comes the necessity for skills to assess the information’s authenticity, validity and reliability.

This information is also available in multimedia formats, including graphical, aural and textual. This poses special challenges in evaluating, understanding and using information in an ethical and legal manner.

## Common Tenets

Some of the similarities identified in successful AISI projects that focused on digital literacy included the following:

### Collaboration/Professional Development

- It is imperative to provide staff with opportunities to collaborate, particularly if the project involves several schools.
- Successful strategies include teachers working with teachers, teachers as researchers, teachers as mentors and coaches.

### Instructional Strategies

- Teachers and students can learn from each other.
- Teacher use of technology tied to curricular outcomes enhances student engagement.
- A broad spectrum of successful instruction included the use of Web sites, videoconferencing, digital storytelling, Wikis, interactive whiteboards, etc.
- Linking student learning to real-world applications is a successful strategy.

### Project Leadership

- Both large- and small-scale projects are more successful with a diverse project team.
- Having the support of the senior leadership in the jurisdiction is critical.
- A project manager or project team requires time to manage all the dimensions of the project.

### Parent Involvement

- Providing opportunities for parents to be involved in students' learning with technology builds support.
- Most of these projects use technology as a communication tool for parents and for the wider community.

### For More Information ...

Visit Alberta Education Web site—AISI Projects and Promising Practices at <http://education.alberta.ca/admin/aisi/chouse.aspx>.

## An Overview of Technology/Digital Literacy AISI Projects

Project	Purpose	Description
<p><b>Encountering Real-world Literacy</b></p> <p>AISI #30152 Cycle 3</p> <p>Grades 4–8 986 Students, 10 Schools</p> <p>Clearview School Division No. 71</p>	<p>To improve student learning and engagement in increasingly changing societal literacy media by providing more authentic real-world opportunities.</p>	<p>Develop literacies such as digital storytelling, blogging, e-mail, video production, discussion boards, text messaging and future forms yet to be introduced, and infuse information and communication technologies (ICT) outcomes into subject-area curricula and engage students in authentic and practical learning through the use of new inquiry-based activities that support new curricula. Challenge staff to consider how multiliteracy is approached in classrooms and to engage in best practices in the area of student literacy development.</p>
<p><b>Learning with Technologies</b></p> <p>AISI #30087 Cycle 3</p> <p>Grades K–12 2600 Students, 13 Schools</p> <p>Edmonton School District No. 7</p>	<p>To use technologies to support and enhance learning across all grades and subject areas.</p>	<p>Explore the use of technologies to support and enhance learning across all grades and subject areas and engage students in authentic, complex tasks to develop higher-order skills such as critical thinking, analysis and scientific inquiry.</p>
<p><b>21st Century Learning Environments</b></p> <p>AISI #30273 Cycle 3</p> <p>Grades K–12 39 000 Students, 83 Schools</p> <p>Calgary School District No. 19</p>	<p>To create an optimal learning environment that is responsive to all learners.</p>	<p>Build a common understanding and framework for K–12 that provides multiple entry points for initiatives that champion personalizing learning, learner pathways, information and digital literacy and allow for job-embedded leadership development.</p>

## Encountering Real-world Literacy, Grades 4–8

Clearview School Division No. 71, AISI Project #30152

### PROJECT OVERVIEW

#### What they did ...

- Clearview School Division focused on improving student engagement in media literacy such as e-mail, video production, discussion boards and text messaging.
- Teachers were challenged to consider how multiliteracy is approached in classrooms and to engage in best practices in the area of student literacy development.
- Students and teachers were encouraged to develop flexible habits of mind to adapt to new technologies and literacies.
- Teachers actively promoted cross-discipline projects and learning activities.
- Parents and the community became involved in discussing literacy learning and in helping students connect school literacy practices to real work and cross-curricular learning situations.

#### How they did it ...

- Teachers increased the metacognitive practices in students' literacy learning. They connected specific curricular goals to real-world literacy practices so that students could see the connections.
- Students were engaged in authentic and practical learning through the use of inquiry-based activities that included peer assessment, self-assessment and teacher assessment strategies.
- A model program for school–home multiliteracy support was developed
- Teachers at Botha School planned collaboratively to connect as many grades and curriculum outcomes as possible based around a medieval theme. All classes participated in a medieval video project designed with grade and developmentally appropriate components.
- Big Valley students experienced enhanced classroom learning through videoconferencing. Students engaged in extensions to their classroom learning by conferencing with:
  - scientists at NASA to learn about planets
  - physicians through Surgical Suite to learn about medical careers while sitting in on a live knee replacement surgery
  - conservation officer in Greenfield, Missouri, to learn about Native American use of the bison
  - zookeepers at the San Diego Zoo to learn about animal adaptations
  - Global-Leap videoconferencing in the UK to learn about England.

- The videoconferencing providers sent pre- and post-videoconference activities for students and teachers to prepare and continue the learning processes. Some providers sent materials; e.g., cultural artifacts, pig hearts and dissecting instruments, science experiments.

### What they learned ...

- Staff collaboration was enhanced through this real-world literacy focus.
  - Staff members were able to improve their effective use of literacy technologies to support student learning.
- There was a heightened community involvement and awareness of literacy issues.
- There was enhanced classroom learning and improved student interest, motivation and engagement through videoconferencing.

“Team teaching and flexibility on the part of staff enabled Botha School to be seen as 61 students being taught by 7 adults working toward common learning goals rather than 5 separate grades each with a separate teacher and separate goals.”

## PROMISING PRACTICES/KEY STRATEGIES

### Building a Literacy Environment

- Metacognition, self-assessment and peer assessment and collaborative problem solving were consciously and continuously modelled and engrained into the school culture.
- Technology was incorporated into the project as students were instructed on the operation of various technologies—videoconferencing equipment, video and editing equipment, support resources and assessment tools.
- Teachers’ collaborative planning on the theme of multiple literacies was significant to the success of this project.

### Collaboration

- Administrators, central office, board trustees, school staffs and members of the community were involved in the planning.
- School staffs collaboratively planned and were involved in real-world literacy projects. Many projects were cross-grade.
- Students collaborated with peers, other students, parents and members of the community.
  - Collaboration with members of a neighbouring high school football team promoted literacy through buddy reading.

### Parent/Community Involvement

- There was ongoing parent and community communication and involvement in literacy partnerships with schools.
  - Parents and community members were invited to school literacy events.
  - Parents were encouraged to participate actively in videoconferencing lessons and to use support materials sent home with students before and after each videoconferencing lesson.
- “The project at Botha School generated considerable public, community and especially parental interest in our school and literacy learning.”
- “At Big Valley School, videoconference results were continually shared with parents and the community through newsletters and School Council.”

### Unexpected Delights ...

- The Botha School community raised over \$4,000 to build a new eco-playground. “This has in turn spurred a community–school partnership to build and redesign the school’s playground.”
- At Big Valley School, “Parents were impressed with student engagement. Parents and students discussed their school experiences at home.”

## Learning with Technologies, Grades K–12

Edmonton School District No. 7, AISI Project #30087

### PROJECT OVERVIEW

#### What they did ...

- This project involved 13 schools in exploring the use of technologies to support and enhance learning across all grades and subject areas.
- Staff used technology to:
  - engage students in real-world situations
  - foster peer cooperation and promote creative thinking
  - provide support to a diversity of learning needs and life skills.
- This project developed staff awareness and expertise in using technologies, and increased parent and community awareness of the use of technologies.

#### How they did it ...

- All schools participated in planning the project—including reviewing of research, determining needs, setting parameters, suggesting key implementation strategies and sharing ideas with students.
- The project leadership team (PLT) met monthly to discuss progress, share successes, respond to challenges, monitor resource allocation and plan.
- Teachers were motivated to explore and try new technologies.
- There was cross-grade and cross-curricular collaboration of staff and students within and across schools.
- Technology was used to differentiate instruction.
- New technologies were purchased and older ones were upgraded.
- The district provided timely technological support.

#### What they learned ...

- Consistent, meaningful and ongoing consultation throughout the project ensured overall effectiveness and success of the project.
- “Students reported increased use of technology both for themselves and for their teachers.”
  - Students were more engaged in using technology in a variety of ways, and they collaborated beyond the classroom.
  - “Students showed growth in their tech skills faster than anticipated.”
  - “Parents are impressed by the skill level their children are demonstrating.”

“Another challenge is to shift the mindset that technology is an add-on. Really we are living in a digital world and technology is the tool that engages our students to be critical thinkers and problem-solvers.”

- Teachers indicated that technology had a positive impact on their pedagogy as they built expertise, mentored colleagues and shared leadership capacity.

## PROMISING PRACTICES/KEY STRATEGIES

### Project Leadership

- The project leadership team members acted as a liaison among schools. Their role was to ensure that student learning was enhanced through this project.
  - “PLTs have developed meaningful relationships as teams and have become an accepted, respected and powerful leadership entity in the district.”
- The superintendent and senior administration supported schools through school visits, discussions with teachers through teacher advisory groups, discussions with leadership staff through superintendents’ council, and informal talks with students, parents, community members and staff.

### Learning with Technology

- “The PLTs established a Wiki (an online collaborative environment), which allowed them to collaborate and increased their personal knowledge of new technologies.”
- Staff showed an “increased interest and risk-taking in using technology.”
- Students were provided with appropriate assistive technology and were offered a variety of ways to express and demonstrate what they learned.

### Professional Development

- Differentiated professional development—district, project, cohort, school, individual—was offered. The focus was to build in-school and district capacity and sustainability.
- The PLTs modelled different technologies and how they could be integrated into the classroom.

## Unexpected Delights ...

- “Students are using hardware and software during student assemblies, classroom presentations to parents, inter-school presentations.”
- “We have committed one early Thursday staff meeting to collaboratively work through some of the online professional development activities, provide feedback to each other and to enjoy presentations of classroom applications. This sharing is paramount!”
- “The positive nature of parent responses and the quantity of communication exceeded expectations.”
- Staff quotes from the online survey included the following:
  - “Another unexpected result has been in the area of students increasingly being excited about the possibility of using various technologies to support them at their level and pace of learning.”
  - “Staff collaboration has been beyond what we had anticipated. It has brought new energy and a willingness to take risks on the part of many teachers/staff who were quite fearful about using technology.”
  - “Our parent group provided much of the funding we needed to bring in new technology. We have found that they are very interested in what we are doing in classrooms and children are talking more about their learning when they go home.”
  - “Teachers who were reluctant are now highly motivated and excited. Evidence of change in teaching practice to use technology to differentiate learning. Students are excited to learn and highly motivated. Pace of change is more accelerated than anticipated.”

## 21<sup>st</sup> Century Learning Environments, Grades K–12

Calgary School District No. 19, AISI Project #30273

### PROJECT OVERVIEW

#### What they did ...

- This project involved 83 schools in building a K–12 framework that provided multiple entry points for initiatives that champion personalizing learning, learner pathways, information and digital literacy.
- Technology was incorporated to enhance student skills in critical thinking, research, communication and productivity.
- This project was designed to bridge the technology gap between teachers and students. “It is not only about research, but also about using technology and putting it in the hands of students.”

#### How they did it ...

- Students were provided with access to digital learning environments through the use of new technologies and research in the learning environment.
- 21<sup>st</sup> century learning environments, which included libraries, were created.
- Virtual alternative delivery methods, such as Desire2Learn (D2L) portal, electronic portfolios, interactive boards and assistive technology, were used.
- Staff incorporated information literacy across the curriculum.
- Used technology with an inquiry approach to learning.
- Used a coaching/mentoring model.
- In-house support was provided in the form of a teacher to work with teachers and students in classrooms to meet the needs of students in new ways. For example, one school focused on film and visual media as its school-wide content to enhance literacy development of ESL students.
- There was an increased availability of technology for teacher and student use.

#### What they learned ...

- School staffs, parents and students are supportive of the use of the D2L portal and other online tools as additional resources to help students and as communication tools.
- Creating a school-wide focus has provided the opportunity for teachers and students to learn from one another.

“Excellent work is already being done in classrooms to support student learning such as on-line learning, supporting students with assistive technology, enhancing teaching and learning through the use of SMART Boards, laptops, and video.”

## PROMISING PRACTICES/KEY STRATEGIES

### Instructional Strategies

- Broaden curriculum understandings of intercultural and global perspectives.
  - Schools make curriculum connections to local, national and global contexts.
- This strategy was implemented in a variety of ways.
  - Teachers acted as researchers to extend the curriculum in meaningful and more comprehensive ways.
  - Calgary Board of Education (CBE) curriculum specialists joined school staff to develop a curriculum-enriched program.

### Professional Development

- Professional development activities were collaborative.
  - “Staff collaboratively developed goals and parameters for their roles as observers and researchers during the lesson before it was taught.”
  - Goals were developed in consideration of student achievement information, the school’s educational goals and articulated ideal of a mathematical learner.
  - “Within each PLC, one teacher taught the lesson to his or her students while the rest of the PLC observed their collective lesson and assessment plans in action.”
  - PLC members then met, shared observations and insights, modified the lesson and brought it forward to another group of learners.

### Project Management

- An Integrated Project Management Team Model was developed, with:
  - an Oversight Team
  - a Project Steering Committee
  - a Project Team and
  - a School Development Team.

### Parent Involvement

- “The Internet was used as a bi-directional communications tool with parents.
  - Classes learned how to create an effective Web design to support communication and every class created an interactive Web site for parents and students.
  - Parents gained an understanding of outcomes in student learning such as projects and investigations.
  - The Internet allowed parents to communicate with the school.”

- Given that it was seen as a bidirectional tool, blogs and feedback opportunities were created on Web sites.
  - “A school-wide norm was established that all classrooms would work to document their learning through a Web site and that administration would ensure the needed technical tools were available.”
  - For example, Grade 5/6 students created school surveys and a Kindergarten class did an online workshop on Supporting Early Literacy Growth for parents to access at home.
- There have been many celebrations with classroom-based D2L projects, allowing learners to share their classroom work with parents on a more regular basis.

### Unexpected Delights ...

- “The gap between teacher knowledge in technology and students’ knowledge seems to have created the context for a more collaborative and generative learning environment wherein students were provided with greater opportunity to bring creativity into the learning and communication process by using a variety of tools.”
- “The use of technology at our school has expanded in a number of significant ways.
  - Last year, we created a D2L shell. Our ‘paper communication’ among staff members and a good amount of our staff meeting items has now been replaced by on-line communication.
  - Teachers have been making use of laptops in PLC meetings and posting their write-ups on D2L.
  - This year we have started to document our PLC work through photo journaling and the videotaping of classroom lessons and PLC-related staff discussion.”
- Project work has been recognized in staff meetings, area meetings, parent councils, principals’ meetings, key communicator meetings and trustee presentations.

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