

**CALGARY BOARD OF EDUCATION
REASONABLE INTERPRETATION FOR ENDS 1: *MEGA END***

The Calgary Board of Education *Mega End* states:

Each student, in keeping with his or her individual abilities and gifts, will complete high school with a foundation of learning to function effectively in life, work and continued learning.

It is often said that learning does not stop at the end of a formal school experience, but must be viewed as a lifelong pursuit. This is especially true in current times with the rapid changes taking place across the globe. Advances in technology, greater understandings of the brain, and the far-reaching effects of globalization contribute to a growing conviction that the best thing we can teach our students is how to learn for a lifetime. This understanding contributes to the Chief Superintendent's interpretation of what it means to have developed a foundation of learning to function effectively in life, work and continued learning. It is the development of a mind-set whereby an individual desires ongoing intellectual growth and further development of skills and talents. It speaks of a determination to expand one's knowledge and understandings of the world. It requires a transformation from a knowledge-based teaching perspective to one that views student learning in a more holistic manner.¹ The Canadian Council on Learning recognizes the importance of viewing students through a holistic lens in its report on the State of Aboriginal Learning in Canada (2009). This report states that to fully understand learning we must incorporate a student's knowledge along with their community well-being over the length and breadth of a lifelong learning journey.

¹ The transformation to a holistic approach to student learning is shaped by our growing understanding of how people learn. The pioneering work of Lev Vygotsky in the 1920's demonstrated the importance of the social environment to the learning process. Jean Piaget's theories attempted to demonstrate that cognitive development in children proceeds in a predictable sequence of steps (1952). His work also revealed that we learn not so much by acquiring content from outside our minds, but rather by constructing it from within. Building on Piaget's work, Benjamin Bloom (1956) formulated his famous taxonomy, in which cognitive skills are ordered hierarchically. Bloom's taxonomy has since been adjusted to help teachers understand a standards-based curriculum. The revised hierarchy of cognitive skill development begins with remember, understand, and apply, and proceeds on to the skills needed for analyzing, evaluating and creating (Anderson & Krathwohl, 2001).

Current educational thought not only focuses on a more holistic view of students, but also on a more holistic view of teaching and learning in general -- a view focusing on what Richard Elmore terms the “instructional core”². Elmore describes the relationship between student, teacher and content as forming a greater entity in an instructional core, just as the reasonable progress made towards the attainment of Ends 2: *Academic Success*, Ends 3: *Citizenship*, Ends 4: *Personal Development* and Ends 5: *Character* work together to provide the foundation of learning to function effectively in life, work and continued learning; the greater entity of Ends 1: *Mega End*. Rather than serving as simply a culmination of Ends 2 through 5, the *Mega End* becomes a larger result through the synergistic relationship that occurs amongst the elements of the other four Ends (see Attachment II). To provide an example of a whole being greater than the sum of its parts, we need look no further than our students. Our students gain many individual skills and attributes over the course of their school experience, but when we look at each student as a whole and examine their understandings, we see the culmination of those individual learnings as a greater entity. Ends 1: *Mega End* reflects this critical way of thinking as it speaks of the foundation of learning used to function effectively in life, work and continued learning.

The *Mega End* describes the hopes that our community has for developing the skills of our children and youth, and the expectation that public schooling will provide a foundation on which they can build successful lives. Conventional wisdom commonly asserts that a certain level of educational achievement is required for effective functioning in a world that is becoming increasingly complex and challenging. Social commentators commonly assert that, at a minimum, all high school completers need to attain proficiency in literacy, numeracy and various kinds of social understandings. This assertion, in general, has validity for a large number of students. It becomes problematic, however, when we attempt to build agreement on the level of proficiency required and on the universality of our expectations for all students.

² Current research conducted by Richard Elmore (2008) builds upon earlier learning theories and helps us develop a richer understanding of the learning/teaching relationship. Elmore unpacks a concept he terms “the instructional core”. He describes this core as the symbiotic relationship between teacher and student in the presence of content. Each learning task is designed with this instructional core in mind, recognizing that the individual components of the core work in combination with the others. He maintains that the only way to improve student learning is by adjusting one or more components of the core. By adjusting one component each of the remaining two are also affected, illustrating the synergy between the three.

The Chief Superintendent believes that high school completion can serve as a useful outcome to gauge system performance, but only if an appropriate definition for high school completion is developed ethically and with high sensitivity to each one of our students. The Chief Superintendent interprets Ends 1: *Mega End* as the overarching outcome of what it means for each student to be well educated in the Calgary Board of Education, and uses a model presented by Michael Barber (2009); to inform the Reasonable Interpretation of Ends 1: *Mega End*.

Barber has developed an equation – Well educated = E(K+T+L). This equation contains elements he describes as necessary now, and into the future, to produce well educated citizens. The ‘K’ and ‘T’ stand for the concepts of knowledge and thinking; traditional ingredients in educational philosophy. Barber then expands the concept of a well educated individual to include an ‘L’ for leadership and qualifies an understanding of the term leadership to include taking action and skilfully wielding influence. Finally, Barber encapsulates the elements of Knowledge, Thinking and Leadership within an ethical framework (E); ensuring that actions taken are for the benefit of society.

Barber’s model serves to represent the phrase “foundation of learning” in the Board of Trustees’ Ends 1: *Mega End* statement. By combining Ethics with Knowledge, Thinking and Leadership, his model serves to broaden the mandate of education systems, much like the inclusion of Ends 2: *Academic Success*, Ends 3: *Citizenship*, Ends 4: *Personal Development* and Ends 5: *Character* broadens the concept of the Calgary Board of Education’s *Mega End*.

For example, one could place the Knowledge (K) component of Barber’s equation within Ends 2: *Academic Success*. However, on closer examination, it becomes clear that the Knowledge component does not solely apply to Ends 2, but permeates through Ends 2 through 5. It takes considerable knowledge to become a responsible, informed citizen, just as it takes knowledge to achieve success on provincial achievement test measures. Conversely, the Leadership (L) component of Barber’s equation seems to lend itself to an interplay between Ends 3, 4 and 5. However, Leadership is also a critical factor leading to *Academic Success*.

The personalization of student learning is the critical overarching component in creating a Calgary Board of Education *Mega End* statement. This statement uses Barber’s equation as a model and demonstrates the synergy emerging from the interplay among all of the Board’s Ends.

Ends 1 - *Mega End*: P(A ⇔ C ⇔ PD ⇔ CH)

In the Ends 1: *Mega End* statement above, the letter A stands for Academic Success, the letter C for Citizenship, the letters PD for Personal Development and the letters CH for Character. Although the two-directional arrows seem to represent interplay between only two components at any one time, all components work together within a framework of personalized (P) student learning to create a bigger picture of success – the *Mega End*.

Personalizing learning for students makes their schooling experience meaningful and authentic. When students see relevance in their work they are more likely to be fully engaged in the learning process and, in turn, reach greater potential. David Perkins, a leading Harvard educator, discussed the importance of relevance to a student's learning at the Future of Learning Conference 2009. He addressed what he calls the Relevance Gap by asking educators to consider the worth of what they are teaching, and then to impart that worth to students. He notes that students need to understand why they are learning something as well as its application to real-life situations in order to continue wanting to learn. Students need to understand the learning's relevance to their personal lives.³

In personalizing learning to best prepare students for lives after high school, it is important to build upon the talents, skills and aspirations of each individual while also considering the needs of society. Problem-solving, creative thinking and an ability to work effectively with others are commonly considered as essential skills in today's global marketplace.

Many considerations must be taken in determining what attributes are necessary to provide students with the foundation of learning to function effectively in life, work and continued learning. Historical research, in conjunction with current

³ In addition to making learning personally relevant for students, Sharon Friesen identifies four additional core principles in an *Effective Teaching Practices Rubric* (May 2009). She asserts that not only should learning be connected to each student's personal world, but that learning must be designed to engage students on academic and intellectual levels. She goes on to discuss the importance of relationships within a learning framework, including teachers' own learning, as current research demonstrates that teachers gain the most professional development through the work with their peers. Finally, Friesen highlights the significance of on-going assessment to guide teacher and student work. This provides students with clear targets guiding expectations towards improving learning. These five core elements contribute to an increased personalization of learning; making learning more relevant for all.

models of what is meant by a well educated person, produce a list of student attributes sought by educators. A well-educated student is one who has mastered an array of cognitive skills as well as skills in the affective and aesthetic domains.⁴ The combination of these skills must also be commensurate with one's personal learning needs and abilities.

Personalizing learning is a distinct challenge within Calgary Board of Education schools as this jurisdiction serves students from a wide socio-economic spectrum and with a variety of learning needs. Our students represent a myriad of cultures, with many learning the English language. The Calgary Board of Education embraces diversity and inclusion. All students matter.

To most effectively use this Reasonable Interpretation's conceptual definition, including the Outcomes, Measures and Data Sources that follow, in determining future reasonable progress towards Ends 1: *Mega End*, it is imperative that the revised Reasonable Interpretations of Ends 2 through 5 be considered in order to fully determine how the *Mega End* reflects the whole that is greater than the sum of its parts.

Outcomes

- Reasonable progress towards Ends 2: *Academic Success*, Ends 3: *Citizenship*, Ends 4: *Personal Development* and Ends 5: *Character* demonstrate reasonable progress towards Ends 1: *Mega End*
- Student transition into post-secondary learning
- Students are prepared for life, work and continued learning
- High school success

⁴ The International Education Roundtable (July 2009) added the importance of vocational education to this list of critical skills in developing lifelong learners. Vocational education, the report emphasizes, should focus on learning, not just training. It is critical that the CBE continue to expand its view of work preparation by maintaining programming flexibility with increased links to apprenticeships, work experience opportunities, post-secondary institutions and industry.

Measures

- Measures for Ends 2 through 5 will be developed as each of the Ends' Reasonable Interpretations is reviewed and revised prior to fall of 2010.
- Measures developed to inform the Reasonable Interpretations of Ends 2 through 5 will inform the reasonable progress towards accomplishment of the Reasonable Interpretation of Ends 1: *Mega End*.
- % of students transitioning from high school to post secondary within 4 years
- % of students transitioning from high school to post secondary within 6 years
- % of students who report feeling satisfied that their CBE experience has adequately prepared them for life, work or continued learning (after 1 year following high school) (Longitudinal study*)
- % of students who report feeling satisfied that their CBE experience has adequately prepared them for life, work or continued learning (after 3 years following high school) (Longitudinal study*)
- % of students who report satisfaction with their CBE experiences in adequately preparing them for their on-going learning experiences (Longitudinal K-12 study*)

*baseline will be established following the administration of the 2010 student survey

Data Sources

- Annual monitoring reports for Ends 2: *Academic Success*, Ends 3: *Citizenship*, Ends 4: *Personal Development* and Ends 5: *Character*.
- Alberta Education Accountability Pillar Summary
- Mega End Symposium data (including Longitudinal 1 and 3 year post-high school studies)
- CBE student survey
- Longitudinal K-12 study
- Individual Program Plans (IPPs)
- Student report card exemplars