making teaching & learning visible

resource guide | personalized learning

Calgary Board of Education

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Personalized Learning - Introduction

The Calgary Board of Educations' Three Year Education Plan articulates a vision for what success looks like for every student and maps the foundation for how we will get there. At its core, is a commitment to personalized learning; the intentional and responsive practices that centre on developing learning experiences for all students so that they can participate, progress and achieve.

We are pleased to offer you this resource to support your understandings of personalized learning within the Calgary Board of Education. We hope that it will help to stimulate deeper understandings and spark pedagogical conversations that will ultimately improve the educational experiences of each student, every day, no exceptions. This is a living document and we would invite you to provide feedback to help continue to increase our collective understandings.

Deborah Lewis
Superintendent, Learning Services

Overview of Personalized Learning

Personalized learning fosters success for *each* student, *every* day, *no* exceptions.

Foundational to personalized learning is the understanding that 'all students' means *each and every student*, and that teachers and instructional leaders make instructional decisions with both the collective and the individual in mind.

The result is rich and dynamic student learning that supports the CBE Mega Result:

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

What is personalized learning?

Personalized learning
- begins with engagement
- is active and effortful
- is assessment rich
- is meta-cognitive and transformative

Personalized learning is based upon rigorous eduational research from key experts in the field of education. In the Calgary Board of Education, personalized learning is:
- a highly intentional and responsive teaching and learning experience that intensely attends to *each* student's learning so that *all* students can participate, progress and achieve
- the result of a complex interplay of interactions around the instructional core.

Personalized learning results in:
- students with superior academic results
- students and teachers who are self-directing, self-initiating, self-reflective and fluent with social and independent problem-solving
- content understanding that is usable, that exceeds recall and that transfers to new contexts
- a powerful, coherent culture of instructional practice.

"Success for each student, every day, no exceptions"
(Naomi Johnson, September 2011)

Considerations as an educator

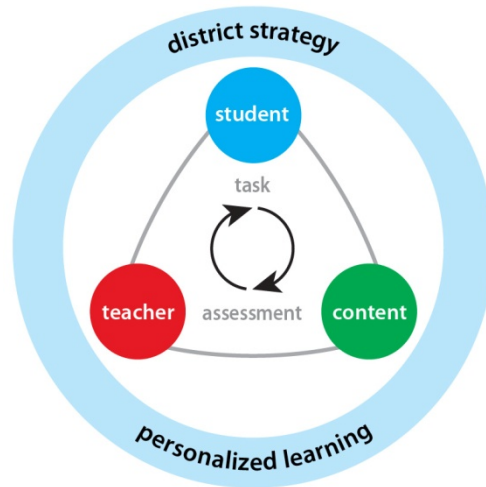Personalized learning requires educators to carefully consider:
- the instructional design decisions they make
- the impact those decisions have on student learning
- what is required of them as the next best step in teaching.

Planning and reflecting on instruction with these aspects in mind results in deeper student engagement and agency, teacher professional growth, and improved student learning.

Personalized learning requires:
- the teacher and student agreeing to be reciprocally influenced by one another
- the transfer and negotiation of agency between student and teacher
- the active direction of the student; whereby the student has influence on the structures and processes of learning in the effort to make meaning

Personalized Learning through the Instructional Core

The instructional core represents the dynamic relationship between:

- the teacher;
- the student; and
- the content.

At the centre of the instructional core is the process of instructional design, involving both the task and assessment.

Personalized learning is a complex interplay of interactions around the instructional core. The instructional core represents the dynamic relationship between the teacher, the student and the content. At the centre of the instructional core is the process of instructional design, involving both the task and assessment.

Teaching is a complex interplay of interactions and relationships involving the student, the content (the Programs of Study), and the knowledge and skill that a teacher gains through the teaching and learning experience.

Teachers gather knowledge of their students through assessment and then assist students in gaining understanding of the content. As teachers collect evidence of student learning, instructional decisions are constantly reviewed and evaluated.

The instructional core requires:

- responsive and flexible approaches to instruction
- an understanding of each learner.
- willingness of students and teachers to be reciprocally influenced by one another and by the content of the Programs of Study.

There are three ways to improve student learning:

1 | raise the level of the content that the students are taught;
2 | increase the skill and knowledge that teachers bring to the teaching of that content; and
3 | increase the level of students' active learning of that content.

What is required are teachers who are aware of what individual students are thinking and knowing, teachers who can construct meaning and meaningful experiences in light of this knowledge, and teachers who have proficient knowledge and understanding of what progression means in their content to provide meaningful and appropriate feedback (Hattie, 2009).

"If you change any single element of the Instructional Core, you have to change the other two to affect student learning" (City, Elmore et al., 2009, p.25).

Personalized Learning through the Adjustment Cycle Process
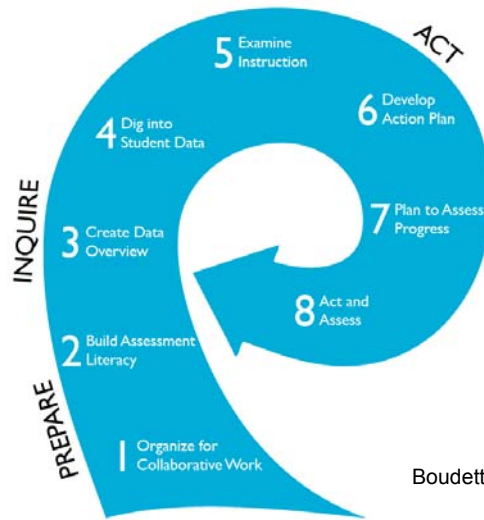
Boudett, City & Murnane (2006)

Personalized learning involves a continuous intentional adjustment of instructional strategies, determined by the evidence gathered through thoughtful formative assessment processes.

Personalized learning involves a continuous intentional adjustment of instructional strategies, determined by the evidence gathered through thoughtful formative assessment processes.

Teachers and students must be clear on learning outcomes, what success looks like, and what evidence will be gathered to determine student success.

What is most important is that teaching is visible to the student, and that the learning is visible to the teacher (Hattie, 2009).

As teachers gather knowledge of their students, as students engage in the content, and as teachers collect evidence of student learning, instructional decisions are continually reviewed and reconsidered. This decision-making process is the adjustment cycle.

Teachers engage in a continuous cycle of instruction, assessment and adjustment. The information gathered from assessment is used to:
- inform teachers' instructional decisions
- inform students' learning strategies
- build understanding for both teachers and students in the ways that students can demonstrate their understanding of learning outcomes

Personalized Learning: Resource Guide

The four aspects of personalized learning serve as a foundation for instructional leaders and classroom teachers. These aspects are:

Personalized learning
- begins with engagement
- is active and effortful
- is assessment rich
- is meta-cognitive and transformative

In this resource, each of these four aspects of personalized learning is presented with implications and questions related to the student, the teacher and the content. The implications are provided for instructional leaders and teachers to reflect upon personalized learning. The questions serve as a starting point for conversation.

Guiding questions that support all aspects of personalized learning have also been included. These questions are starting points for professional dialogue that focuses on personalized learning within the CBE and direct our attention to purposeful instructional design considerations involving the teacher, the student and the content.

This resource guide is designed to:
- support teachers as instructional designers;
- support administrators as instructional leaders;
- encourage reflection when designing learning experiences that personalize learning for all students; and
- support instructional leaders and teachers as they engage in the conversations that make teaching and learning visible.

1| Personalized Learning Begins with Engagement

"Intellectual engagement refers to an absorbing, creatively energizing focus requiring contemplation, interpretations, understanding, meaning-making and critique."
(Friesen, 2009)

Student | Student's individual questions, interests and ideas are engaged in the pursuit and achievement of a deep understanding of subject matter.

Teacher | Teachers' practical wisdom, pedagogical watchfulness, and intellectual curiosity are engaged with and for this student in the discipline of the subject matter and in the discipline of their own profession.

Content | What is known (existing knowledge) is engaged in the pursuit of what is unknown (developing knowledge).

Establishing a learning environment where students are actively engaged in processes of assessment and learning requires:

- a recognition that student agency and intellectual engagement are the catalysts for learning;
- teachers' understanding of instructional strategies, their care and attention to students, and their intellectual curiosity are engaged with and for each student in the subject discipline; and
- students and teachers continually engaging in learning experiences that seek ways to connect present knowledge to new understandings.

Student agency is understood as students taking ownership of/for their learning.

Honouring student agency means "granting students the authority to voice their own experience and contribute to decisions that directly affect them" (Rodgers, 2006).

Students are recognized as gatherers of data with self-reflection being an important element in understanding what is needed for successful next steps.

As with engagement, questions arise around how student agency might look/sound different for different students in different contexts and at different points in their learning. Finding ways to recognize and support each learner on this journey is our work.

Implications for Practice

implications for students

- Students use learning spaces, resources and technologies to support their learning.
- Students are supported in becoming increasingly independent learners following their individual interests and concerns.
- Students are emotionally invested and intrinsically motivated through learning experiences that honour individual questions, interests, and ideas.
- Students assess their own talents and aspirations.
- Students have choice in how they construct and demonstrate their understanding.
- Students are encouraged and supported to use their individual strengths as leaners as they investigate the programs of study.
- Students play an active role in the learning process and recognize it as a continuous cycle of assessment, analysis, and response.
- Students show initiative, imagination and ingenuity when engaging in a variety of creative processes to develop ideas.
- Students see opportunities when faced with obstacles and challenges.

implications for teachers

- Teachers are passionate and curious about content and model intellectual engagement.
- Teachers invite and honour a student's natural curiosity.
- Teachers adjust instruction regularly to incorporate new theories and approaches.
- Teachers have a deep understanding of the Programs of Study (individual disciplines as well as the connections across disciplines.)
- Teachers recognize and respond to outcomes of a particular discipline when presented outside of the predictable content.
- Teachers know the instructional decisions they have made, why they have made them at this time and for this student, the impact of their instructional decisions, and what students require of them next.
- Teachers facilitate students' active construction of meaning (rather than simply telling).
- Teachers generate, evaluate, justify, and revise instructional practices for and with each student.

implications for content

- Content is explored in a way that provides opportunities for multiple theories and approaches to be incorporated into learning experiences that stimulate discussion and debate.
- Tasks developed respect the individual abilities within a class and are appropriately rigorous and relevant.
- Content is explored through big ideas, theories, and concepts to help students understand the significance of what they are studying.
- What is known is engaged in the pursuit of what is unknown.
- Content is explored in a way that is intentional, yet responsive to possibilities and opportunities.
- Content and resources expand and connect learning beyond the classroom.
- Content has multiple entry points.

Student

How do students encounter strategies and tools that will enable them to be successful in their learning?

How are students emotionally invested in the work and making personal connections?

Teacher

How do I come to know my students in a way that will allow me to effectively plan for instruction and assessment?

How are students' individual questions, interests and ideas honoured?

How do I create an environment that allows for engagement?

Content

How can multiple viewpoints and worldviews be incorporated into my content?

How does the content in the task enable students to revisit and rethink important ideas to deepen their understanding?

2 | Personalized Learning is Active and Effortful

Student | Requires students to generate, evaluate, justify and revise cognitive models and skills.

Teacher | Requires teachers to generate, evaluate, justify and revise instructional practices.

Content | Content mirrors the adult work of the discipline and addresses the outcomes of the Programs of Study, citizenship, personal development, and character, and the competencies (Alberta Education Framework for Student Learning: Competencies for Engaged Thinkers and Ethical Citizens with an Entrepreneurial Spirit , 2011).

Personalized learning requires that students have access to quality learning opportunities. Taking ownership of the learning process by discovering and developing their potential, passions, and gifts, our students become lifelong learners and develop the skills and knowledge necessary to make significant contributions within a complex, changing world.

The CBE's mission "educating tomorrow's citizens today" requires students who are learning in active, meaningful and personalized ways.

The shift from "we teach, they learn" (Friesen, 2009) to learning experiences that engage students emotionally and intellectually creates the conditions in which students are empowered to meet their potential.

Students require learning experiences that help them develop the tools, abilities, and skills to be lifelong learners.

While it is not possible to predict with any certainty what specific skills or knowledge students of today will require in the future, we can be sure they will require competency in literacy, numeracy, critical thinking, problem solving, communicating and collaborating.

When learning opportunities are appropriately challenging and relevant, students make meaningful connections and deepen their knowledge across and within multiple disciplines.

Active and effortful tasks encourage passionate engagement, personal connections to the topic and provide opportunities for critical thinking and problem solving. Students learn best to think critically by hearing, thinking, and talking about issues pertinent to their present or future lives (Noddings, 2006).

The Programs of Study or appropriate individual program goals are the starting points for learning. Opportunities for in-depth inquiry become the focus of learning in an active classroom environment. Where possible and appropriate, students become involved in the design of learning tasks.

They investigate, observe, analyze, synthesize and communicate findings. Effortful study becomes a form of work/play that is undertaken by the student (Davis, Sumara, Luce-Kapler, 2008).

Instruction that focuses on active learning reflects real world contexts, and typically requires higher order thinking skills, involves writing, and is inquiry based (Darling-Hammond, 1998).

Active and effortful tasks are not synonymous with busy work, endless student choice, hands on experiences, or open-ended learning experiences.

Active and effortful tasks are akin to doing the work of authors, carpenters, mathematicians, artists, musicians, and scientists.

Students investigate real problems that are personally relevant and deeply connected to the world they live in.

Implications for Practice

implications for students

- Students are provided with learning experiences that are worthy of their time, care and attention.
- Students connect with their learning on an emotional and intellectual level.
- Students become owners and directors of their learning.
- Students construct and represent their learning in ways that honour their individual abilities and talents.
- Students receive specific, timely and constructive feedback about their learning.
- Students recognize they can take risks and that making mistakes is a part of the learning process.
- Students understand intended learning outcomes, can determine what they need to do in order to meet those outcomes, and can reflect upon whether or not the outcomes have been met.
- Students are involved, when appropriate, in the design of learning experiences. This allows them to connect learning to their lived experiences both inside and outside the classroom.

implications for teachers

- Teachers have a deep understanding of their students, disciplinary core concepts and connections, and Programs of Study outcomes.
- Teachers intentionally plan learning opportunities that are based on outcomes from the Alberta Programs of Study.
- Teachers intentionally design learning experiences that are appropriately challenging and relevant to their students.
- Teachers design learning for and with each student so all can participate, progress and achieve.
- Teachers design learning opportunities that use a variety of sources, theories and perspectives.
- Teachers are well informed about current pedagogical literature/research and incorporate these ideas into learning experiences.
- Teachers recognize that learning opportunities focus on the big ideas.

implications for content

- Content is grounded in the Programs of Study and is based on what students should know and be able to do.
- Content provides students with opportunities to develop and demonstrate cognitive skills through creativity, reflective thought, analysis, problem solving, and evaluation.
- Content engages both students and teachers in authentic, intellectual work. All content that students engage with should have significance beyond the classroom. Learning experiences are purposeful and rigorous, and develop skills and knowledge that will prepare students for lifelong learning.
- Students are provided with opportunities to interact at an appropriately sophisticated level with resources, technologies and experts in the field.

Instructional Core Questions Specific to Active and Effortful Learning

Student

How are students able to reflect on their own learning to make adjustments to the task, in order to most efficiently construct new knowledge?

Teacher

How do I build a deeper understanding both within and beyond the Programs of Study that I teach, and incorporate cross-discipline connections?

How do I ensure that I am offering students a variety of learning experiences, environments, and opportunities to personalize their learning through the tasks I design?

How do I process and synthesize information in order to understand each student's strengths, learning styles, preferences, needs, interests, and readiness to learn?

Content

What are the opportunities for outcomes from other Programs of Study that can be incorporated in my classroom?

How is learning experiential?

How does the task reflect the rigor and relevance of the content?

3 | Personalized Learning is Assessment-Rich

Student | Student agency is engaged towards assessing their own their own talents and aspirations, planning a pathway toward meaningful purposes, working cooperatively with other on challenging tasks, maintaining a record of their explorations and feedback and demonstrating their learning against clear standards in a wide variety of media.

Teacher | Teachers plan for and engage in a continuous cycle of instruction, assessment, and adjustment, analyzing assessment data with students and colleagues to inform instructional decisions, to inform student learning tactics and to articulate multiple avenues for the prepresentation of learning against well understood standards.

Content | Content is demonstrated against clear and well-understood standards in a wide variety of media. Learning and assessment are part of the same process.

Assessment information comes from a variety of sources and approaches, and must be grounded in the understanding that students learn in different ways and at different rates.

It informs student's learning strategies and builds understanding for both teachers and students of the many ways students can demonstrate their accomplishment of the learning outcomes.

Students are active as they demonstrate their learning in relation to well articulated criteria. They participate in setting goals and working towards learning outcomes.

Assessment reveals the student's learning journey. Assessment documents the progress of students in relation to the Programs of Study and/or appropriate individual program goals, the Alberta Framework for Student Learning (competencies), and Citizenship, Personal Development and Character (Results).

It establishes where the student was, is, and needs to go with respect to specific knowledge, skills, and processes.

Communication about student achievement clearly describes meaningful aspects of student performance in relation to relevant learning outcomes, in service of continued growth, development and lifelong learning.

Personalized Learning identifies instruction and assessment as part of the same process. Summative and formative assessment practices work in tandem to inform teachers and students about student growth.

Implications for Practice

implications for students

- Students are aware of and responsibly use a variety of communication technologies and modalities to support their learning.
- Students provide respectful feedback to teachers, peers, and self in a variety of ways.
- Students respond to feedback that is timely, specific and constructive.
- Students provide feedback to teachers, peers, and self in a variety of ways.
- Students share responsibility to reflect on and use assessment information to help determine next steps in learning.
- Students recognize they can take risks and that making mistakes is part of the learning process.
- Ongoing, purposeful assessment provides students with the information they need to inform how they approach learning tasks.

implications for teachers

- Teachers purposefully involve the student in assessment.
- Teachers intentionally embed opportunities for formative assessment within learning opportunities that are based on the Alberta Programs of Study, the Alberta Framework for Student Learning (competencies), and Citizenship, Personal Development and Character (Results).
- Teachers engage in reflection and professional development to refine their assessment practice.
- Teachers' instructional decisions are informed by assessment.
- Teachers collaborate to analyze student work.
- Ongoing, purposeful assessment provides teachers with the information they need to make instructional decisions.

implications for content

- Assessment is grounded in the Programs of Study and/or appropriate individual program goals, the Alberta Framework for Student Learning (competencies), and Citizenship, Personal Development and Character (Results).
- Evidence of learning is elicited through quality learning tasks.
- Assessment considers both product and process.
- Grading practices clearly communicate the relationship between student achievement and targeted learning outcomes.

Student

- What will assessment reveal about the student and the next steps in their learning?
- What is the role of the student in the assessment process?

Teacher

- How do summative and formative assessment practices inform my instructional decisions?
- How do I recognize evidence of learning outside of its predictable context?
- What is our assessment data telling us and how do we communicate and discuss this with students and parents?

Content

- How is the task and related assessment linked to the Programs of Study and/or appropriate individual program goals, the Alberta Framework for Student Learning (competencies), and Citizenship, Personal Development and Character (Results)?
- How do we assess understanding of concepts over time and as they connect to they connect to larger ideas?

4 | Personalized Learning is Meta-Cognitive and Transformative

Student | Students know what they know, how they know it, how they show it, and what they need to learn next.

Teacher | Teachers know the instructional decisions they have made, why they have made them at this time and for this student, the impact of their instructional decisions, and what students require of them next.

Content | Students and teachers gain insight into their work and undertake their next steps with new expertise as a result of their experiences with eachother and topics of study.

An essential part of a teacher's role is to guide students in bridging new learning and existing knowledge. Supporting students as they reflect on their learning and make these connections for themselves is central in fostering metacognitive awareness.

Metacognition involves reflection, critical awareness and analysis, monitoring, and reinvention. Students who are engaged in metacognition recognize the requirements of the task at hand. They reflect on and assess the strategies and skills they may employ. They appraise their strengths and weaknesses in the use of these strategies and skills and make modifications. They monitor the use of these reworked or new strategies in future situations (English Language Arts Program of Study, 2003).

Cognitive and metacognitive processes are cyclical in nature and as such difficult to "disentangle" (Fischer, 1998). As students engage with content they consider "'What happened?', 'Why did it happen?' and 'What does it mean?'" (Fischer, 1998, p. 5).

Students engaged in metacognition may explore what they are thinking about content, how they are thinking about content and in what ways these thought processes have impacted their understanding of the content. Through this ongoing process, student understandings of content are continuously revisited and reshaped.

Like students, teachers must engage in metacognitive processes as they come to know their students and hone their instructional practice.

Teachers reflect on the learning needs of their students and the content at hand. This guides instructional design and is fostered through observation, conversations with students, and engaging in formative assessment, as well as the collaborative analysis of student work within adjustment cycles in Professional Learning Communities (PLCs).

It is through metacognition that the next best steps can be identified to move learning forward.

In order to facilitate cognitive and metacognitive development through content exploration, the teacher must actively inquire into student thinking by creating opportunities to scaffold metacognitive thinking for each student.

When teachers are attentive to the learning needs and developmental abilities of each student, and open to a variety of means of communication (verbal, non-verbal, behavioural or emotional), they can determine how best to support students in developing their cognitive and metacognitive processes.

Implications for Practice

implications for students

- Students draw on prior experiences and knowledge when forming new understandings.
- Students recognize and use learning strategies that work best for them.
- Students monitor and direct their own understandings and next steps.
- Students are aware of what they think about a topic and why they think in a particular way.
- Students make decisions based on strong understandings of themselves as learners.
- Students engage in the process of reflecting on themselves as learners in order to further develop their competencies, knowledge and skills.

implications for teachers

- Teachers have a deep understanding of cognition and metacognition as interrelated processes.
- Teachers bridge new learning and existing knowledge.
- Teachers intentionally provide opportunities for students to reflect on their learning and thought processes.
- Teachers actively inquire into student thinking.
- Teachers model using metacognitive processes.

implications for content

- Content is explored in ways that promote interaction between cognition and metacognition. Exploration of content provides students and teachers with opportunities to question and extend their thinking.
- Content engages students and teachers in interpretation and reflection.
- Content is open to organization in a way that meets the needs of the individual learner.
- Content invites collaboration and exploration of different perspectives.

Instructional Core Questions Specific to Meta-Cognitive and Transformative

Student

What opportunities and supports are available for students to engage in the process of recognizing what they know and how they know it?

What opportunities are embedded for students to identify next steps in their learning?

What do students understand about themselves as learners in relation to content exploration?

What evidence do students have that their understandings of themselves as learners are reflected in instructional decisions?

Teacher

How do I facilitate students' active construction of meaning?

What opportunities am I providing for students to reflect on themselves as learners?

How do I recognize the thought processes my students are engaged in?

How do I scaffold metacognitive processes for all learners?

How do I make visible my own metacognitive processes?

How does my metacognitive reflection impact my future instruction?

Content

How is prior knowledge activated when new content is introduced?

How are metacognitive processes interdisciplinary in nature?

How is metacognitive thinking embedded within the content?

How do we make the content flexible to meet students at multiple levels of understanding?

How are metacognitive questions embedded in teaching the content?

Suggested Guiding Questions for Professional Conversation

The following questions are starting points for professional dialogue that focuses on personalized learning within the CBE.

These questions direct our attention to purposeful instructional design considerations involving the teacher, the student and the content.

We invite instructional leaders and teachers to contemplate these questions as they take up personalized learning within their school context.

Student | How do students participate in their learning?

- How are students invited to "live" the Programs of Study?
- How do students develop creativity, critical thinking and problem solving skills?

Teacher | How will this work impact the teacher's knowledge and skills?

- How do I engage with colleagues in this work?
- How am I continuing to learn?
- How do I make instructional design choices?
- What do I watch for, listen to, and ask, to inform my understanding of students?
- How do I demonstrate intellectual curiosity in my approach to the subject matter?

Content | How do teacher and students engage and build a relationship around the content?

- How is curricular content incorporated into tasks and assessment?
- How is the task meaningful and relevant beyond the classroom?

Supporting Resources

Alberta Education: Framework for Student Learning

As of September 2011, The Framework for Student Learning: Competencies for Engaged Thinkers and Ethical Citizens with an Entrepreneurial Spirit replaced the 1998 Ministerial Order (MO) - Goals and Standards Applicable to the Provision of Basic Education. The new Ministerial Order along with revised standards, guidelines, and processes, will provide direction for the development of a future curriculum (programs of study, assessment, and learning and teaching resources). The new framework for student learning outlines the relationships among literacy, numeracy, competencies and subject/discipline areas essential for students to become engaged thinkers and ethical citizens with an entrepreneurial spirit (Framework for Student Learning, 2011).

Alberta Education defines a competency as an interrelated set of attitudes, skills, and knowledge, which are drawn upon and applied to a particular context for successful learning and living. A competency is developed over time and through a set of related learner outcomes. It is believed that these competencies will provide Alberta students with the required interrelated sets of knowledge, skills and attitudes that will help them become engaged thinkers and ethical citizens with entrepreneurial spirit.

In addition to literacy and numeracy, Alberta's Inspiring Action on Education (2010) discussion paper and Action on Curriculum (2011 DRAFT) identify seven competencies. These competencies transcend subject areas and will contribute to the transformation of Alberta's education system.

As we take up our work around the aspects of personalized learning, we must recognize where and how the competencies identified in the framework live in our daily work with students. The Alberta Education core competencies are implied in each of the practices of personalization. As an extension, we invite Professional Learning Communities to engage in conversations that will lead to a deeper understanding of the competencies as they live in the daily experience of classroom life. Finding the alignment between the aspects of personalized learning and the core competencies is our work together.

Alberta Education (2011)
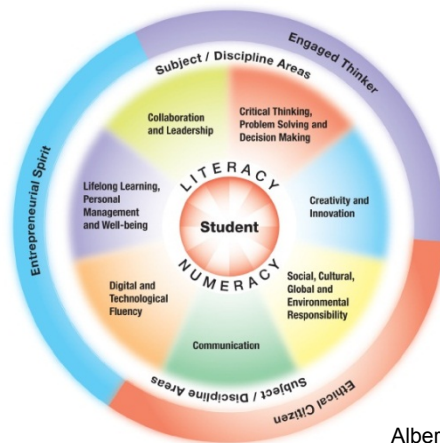
Glossary

Assessment
Data gathering and analysis process that determines the degree to which the learner has achieved essential outcomes and informs decisions about and planning for instruction.

Cognition
Mental processes that include but are not limited to; attention, remembering, producing and understanding language, solving problems, and making decisions.

Competency
Alberta Education defines a competency as an interrelated set of attitudes, skills and knowledge, which are drawn upon and applied to a particular context for successful learning and living.

Constructive feedback
The sharing of evaluative or corrective information promoting improvement or personal development.

Curriculum
The Alberta Programs of Study outline learning outomces, processes, knowledge and skills as well as resources that support teachers in designing learning experiences for and with each student.

Formative assessment
Formative assessment is part of the continuous interaction between student and teacher. It informs teaching and learning in progress, and analyzes the interaction between the student and the content from the perspective of BOTH the content and the learner. The agency of this type of assessment sits jointly with the teacher and the student.

Higher order thinking skills
Skills that require synthesis, analysis and evaluation to increase understanding, solve complex problems, or construct new knowledge.

Inclusive education
According to Alberta Education, inclusive education is a way of thinking and acting that demonstrates universal acceptance of, and belonging for, all students. Inclusive education in Alberta means a values-based approach to accepting responsibility for all students. Inclusion is not a project. It is not an initiative. It is not something else. It is our way of being in our work together.

Instructional Core
Richard Elmore's (2009) model of the interrelationship and interdependence among student, content and teacher. The task and its assessment are at the heart of the instructional core.

Instructional Strategies
The decisions made to further the process of teaching, educating and engaging each student with content.

Instructional leaders
In the CBE, principals are the instructional leaders within our school communities. Instructional leadership can extend beyond the formal role of a principal to include those who take on the role of building the capacity of others.

Inquiry
A dynamic process of coming to know and understand the world through rich, rigorous and relevant study into a worthy question, issue, problem or idea.

Intellectual engagement
An emotional and cognitive connection to a learning experience that utilizes higher order thinking skills.

Meta-cognition
Awareness or analysis of one's own learning or thinking processes.

Pedagogical
Refers to the art or profession of teaching.

Professional Learning Community
A group of educators and instructional leaders that come together on a regular basis to analyse student work, to seek and share learning, and act upon what has been learned.

Scaffold
The ongoing provision of support that promotes student learning.

Standard
Something established by general consent as a model or an example.

Student agency
Student ownership and active participation in their own learning and assessment.

Student Learning Plans
Learning plans provide a means for students and teachers to:
- Consider evidence of understanding in relation to learning outcomes.
- Set learning goals and articulate conditions for success.
- Work together to strengthen students' ability to advocate for themselves in their learning.
- Support student learning during times of transition.

Student Learner Profiles
Learner profiles are:
- Comprised of student data that impacts how we adjust, intervene and design instruction.
- Based on current, relevant and high quality student learning data.

Summative assessment

Is a comparison of a particular moment in time between individual student achievement and established provincial learning outcomes. It analyzes the interaction between the student and the content and summarizes student achievement (i.e. report card mark). The agency of this type of assessment sits primarily with the teacher.

Task

A learning task is at the centre of the instructional core and involves the continuous adjustment of instruction through thoughtful and effective assessment of student learning.

Transformative

Fundamental change in the way we see ourselves and the world in which we live.

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