

Learning *for All*

**A Guide to Effective Assessment
and Instruction for All Students,
Kindergarten to Grade 12**

2011 | Draft Version



reach every student

 Ontario

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Une publication équivalente est disponible en français sous le titre suivant : *L'apprentissage pour tous : Guide d'évaluation et d'enseignement efficaces pour tous les élèves de la maternelle à la 12^e année.*

This publication is available on the Ministry of Education's website, at www.ontario.ca/education.

Preface

*Learning for All, Kindergarten to Grade 12*¹ is a resource guide outlining an integrated process of assessment and instruction for elementary and secondary school educators across Ontario that is designed to help raise the bar and close the gap in achievement for all students. The guide supports the three core priorities for education in Ontario:

- High levels of student achievement
- Reduced gaps in student achievement
- Increased public confidence in publicly funded education

Background

Education for All, Kindergarten to Grade 6

In 2005, the Ministry of Education released *Education for All: The Report of the Expert Panel on Literacy and Numeracy Instruction for Students With Special Education Needs, Kindergarten to Grade 6*.² That document was instrumental in helping to improve achievement in literacy and numeracy among students with special education needs.

The implementation of *Education for All, K–6* was supported by two projects – the Special Education Project (2005–08) of the Council of Ontario Directors of Education (CODE), and the Student Assessment Project, Kindergarten to Grade 4 (2006–08) of the Ontario Psychological Association (OPA). The CODE project focused on the implementation of the recommendations in *Education for All, K–6*, with a focus on literacy and numeracy instructional strategies, to improve student achievement for *all* students and in particular for students with special education needs. The OPA project provided school administrators, school staff, and professional services staff with specific strategies to strengthen the connection between assessment and classroom teaching strategies for students with diverse strengths and needs.

The results achieved through these two projects and through the ongoing work of educators across the province have been encouraging. These results, together with the positive response of educators in both elementary and secondary schools to the ideas and strategies outlined in *Education for All, K–6*, gave the ministry the directional support to develop a resource that would assist Ontario educators in raising the bar and closing the achievement gap for *all* students, from Kindergarten to Grade 12.

Provincial Consultation on a K–12 Guide, 2008

In spring 2008, the Special Education Policy and Programs Branch of the Ministry of Education initiated and led the development of a K–12 resource guide as a follow-up to

1. Referred to henceforth as *Learning for All, K–12*.
2. Referred to henceforth as *Education for All, K–6*.

Education for All, K–6. Through provincial consultations with more than 1500 educators and members of various other stakeholder groups, it was confirmed that the guiding principles and key themes of *Education for All, K–6* were essential to any effort to improve the achievement of all students across the education system. The shared beliefs set out in that document (see p. 6) are now also identified as program planning considerations in all revised Ontario curriculum documents.

Learning for All Regional Projects, 2009–10: Eleven Lead Boards

In June 2009 the ministry released an electronic draft version of *Learning for All, K–12* to directors of education across Ontario, and provided funding to school boards³ to support professional learning related to the strategies outlined in the guide. Eleven “lead boards” received additional funding to begin to use the strategies in selected elementary and secondary schools. The lead boards were responsible for coordinating Learning for All professional learning communities in their respective regions; collecting resources developed by school boards; and gathering feedback to inform the revision of the guide. The lead boards also formed a “Learning for All, K–12” Provincial Network Team that met throughout the 2009–10 school year to share learning and resources. The results of the team’s work and the feedback from the lead boards as well as other stakeholder groups guided the revisions that produced the present document.

Alignment with Ministry Policies and Initiatives

An intraministerial advisory group was consulted throughout the development of this resource guide in order to strengthen its alignment with key ministry policies and initiatives.

The assessment and instructional approaches described in *Learning for All, K–12* are closely connected to the following two strategies:

- **Literacy and Numeracy Strategy (LNS):** Through LNS, the ministry provides support to school boards to help improve student achievement from Kindergarten to Grade 6. The strategy has provided a wide range of professional learning opportunities for educators focused on “intentional, precise planning” of assessment and instruction and has assisted boards in developing strategic plans to support student learning through instructional leadership, assessment and evaluation, and instructional strategies. LNS encompasses initiatives such as Professional Learning, the Ontario Focused Intervention Partnership, tutoring initiatives, character development, Schools in the Middle, the School Effectiveness Framework (SEF), and Ontario Statistical Neighbours.
- **Student Success / Learning to 18:** This strategy focuses on developing literacy and mathematical literacy among students in Grades 7 to 12 and increasing students’ engagement in school through greater programming flexibility, expanded program choices (e.g., increased opportunities for cooperative education; dual credit programs; e-learning opportunities; Specialist High Skills Major programs), and initiatives to support student success through evidence-based intervention strategies (e.g., Re-engagement (12 & 12+)). Student Success / Learning to 18 has helped bring about cultural change in the education system, in terms of both student engagement and professional learning, shifting the focus

3. The term *school board* is used in this document to refer to district school boards and school authorities.

onto *the individual student*. It has promoted differentiated instructional approaches, the Professional Learning Cycle, caring school communities, and the tracking and monitoring of students' achievement and well-being by Student Success teachers.

Learning for All, K–12 shares in the vision that unites all of the following ministry policies and initiatives (detailed information is available at the link provided for each):

- *the Aboriginal education strategy*
www.edu.gov.on.ca/eng/aboriginal/
- *the equity and inclusive education strategy*
www.edu.gov.on.ca/eng/policyfunding/equity.html
- *the Ontario leadership strategy*
www.edu.gov.on.ca/eng/policyfunding/leadership/actionPlan.html
- *the parent engagement policy*
www.edu.gov.on.ca/eng/parents/policy.html
- *Safe Schools and Healthy Schools*
www.edu.gov.on.ca/eng/parents/safeschools.html
www.edu.gov.on.ca/eng/teachers/healthyschools.html
- *Student Voice*
www.edu.gov.on.ca/eng/students/speakup/index.html

In addition, the process and approaches outlined in this guide support the goals identified in the ministry's resource document *K–12 School Effectiveness Framework: A Support for School Improvement and Student Success* (2010). The integrated process of assessment and instruction presented in this guide can support school boards both in their implementation of the framework and in developing their Board Improvement Plans for Student Achievement (BIPSA). As the 2009–10 lead board projects found, *Learning for All, K–12* provides an overarching approach that assists in:

- aligning and focusing initiatives at the ministry, board, and school levels;
- building capacity to help improve student learning on the level of individuals, schools, and school systems;
- strengthening both students' and teachers' sense of efficacy with respect to improving student achievement;
- reinforcing the understanding on the part of teachers that every student progresses along an individual learning and growth continuum from Kindergarten to Grade 12;
- the use of planning tools for assessment and instruction to support student learning;
- bringing about an educational culture based on individual and collective ownership of the learning and achievement of all students.

School boards and schools may find this guide helpful in supporting system planning, priority setting, and development of resources that effectively meet their local needs. It is important to keep in mind that all recommended approaches and tools are most effective when they are adapted to the specific context of local boards, schools, and classrooms.

1. Introduction

The Vision and Purpose of *Learning for All, K–12*

This resource guide outlines an integrated process of assessment and instruction designed to improve student learning at both the elementary and secondary levels. Educators from Kindergarten through Grade 12 can use this process to help plan and deliver instruction that benefits all students, from high achievers to those who need additional support.

The key beliefs that drive the process outlined in this guide were first articulated in *Education for All, K–6* and are now shared among various ministry initiatives designed to help all students improve their achievement.

Our Shared Beliefs

- All students can succeed.
- Each student has his or her own unique patterns of learning.
- Successful instructional practices are founded on evidence-based research, tempered by experience.
- Universal design and differentiated instruction are effective and interconnected means of meeting the learning or productivity needs of any group of students.
- Classroom teachers are the key educators for a student’s literacy and numeracy development.
- Classroom teachers need the support of the larger community to create a learning environment that supports all students.
- Fairness is not sameness.

Adapted from Education for All, K–6, pp. 4–5.

Learning for All, K–12 describes educational approaches that are based on one of the most important findings of educational research since 2000 – namely, that all students learn best when instruction, resources, and the learning environment are well-suited to their particular strengths, interests, needs, and stage of readiness. Like the School Effectiveness Framework (SEF), this guide focuses on ways in which teachers and/or teams of educators can plan and provide the kind of assessment and instruction that enables all students to learn best. **Three elements – personalization, precision, and professional learning – are critical to the process.**⁴

Personalization – Education that puts the learner at the centre, providing assessment and instruction that are tailored to students’ particular learning and motivational needs.

Precision – A system that links “assessment for learning” to evidence-informed instruction *on a daily basis*, in the service of providing instruction that is *precise* to the level of readiness and the learning needs of the individual student.

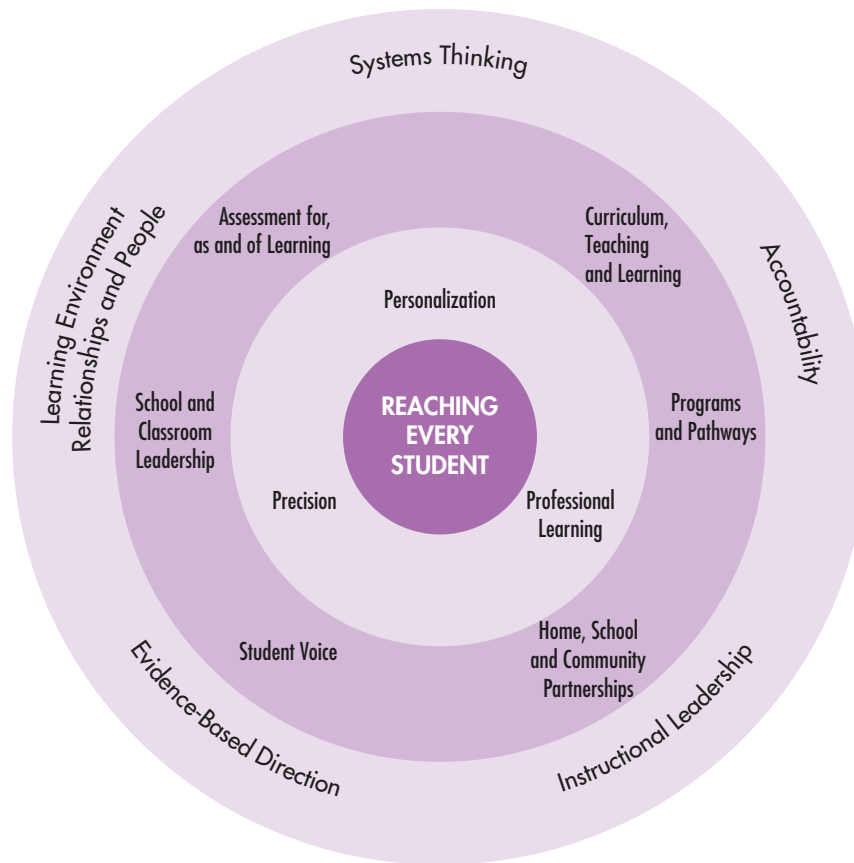
Professional learning – Focused, ongoing learning for every educator “in context”, to link new conceptions of instructional practice with assessment of student learning.

An education system in which these components are closely interconnected can successfully address the need to “establish classroom routines and practices that represent personalized, ongoing ‘data-driven, focused instruction’”.

(Fullan et al., 2006, pp. 16–26, 87)

These three elements are represented in the School Effectiveness Framework diagram in Figure 1 on the following page, in the broader context of the “interdependent areas of activity that need to be considered if improvement for students is to happen in and through schools” (Ontario Ministry of Education, 2010b, p. 2). The framework serves as a tool for schools to identify areas of strength and areas requiring improvement in order to reach all students and improve student achievement. *Learning for All, K–12* can be a key resource for school boards as they work to meet the SEF goal of “precise and intentional school improvement planning” focused on the achievement of all students (p. iii).

4. The work of Conzemius and O’Neill (2002), Dufour (2002; 2004); Dufour and Eaker (1998), Fullan (2007), Fullan, Hill, and Crévola (2006), Reeves (2002), Schmoker (2004), Stiggins (2004), and others explores the ideas noted here. Many of these ideas are developed and integrated by Fullan et al. into a vision of an overall education system, called the Breakthrough system, that can succeed in improving student achievement. Personalization, precision, and professional learning are the three components of the Breakthrough system.

Figure 1. The School Effectiveness Framework

Source: Ontario Ministry of Education, *School Effectiveness Framework: A Support for School Improvement and Student Success*, 2010, p. 2

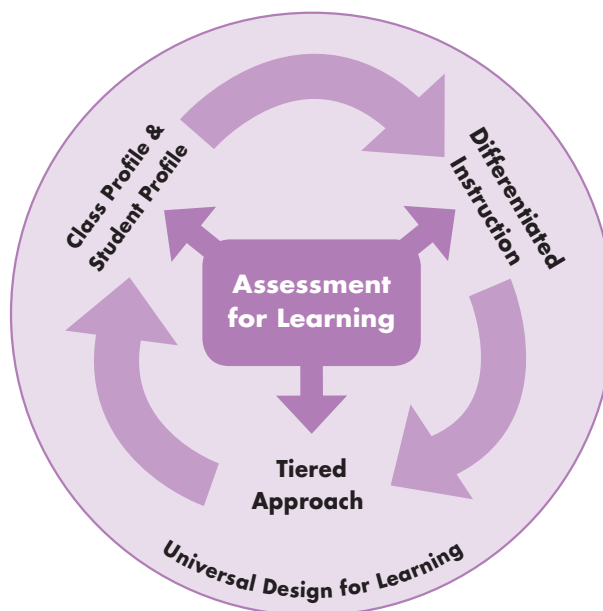
The Organization of the Guide

Learning for All, K–12 describes a process for identifying and tracking the strengths and needs of individual students, through ongoing *assessment for learning* and with the aid of tools such as individual student and class profiles, and identifies a range of instructional approaches and classroom strategies that can be applied to provide effective *personalized and precise* assessment and instruction for all students. The guide is organized as follows:

Chapter 2 provides an overview of the various instructional approaches that enable educators to focus effectively on individual students’ strengths and needs – such as Universal Design for Learning, differentiated instruction, and the tiered approach to prevention and intervention. Chapter 3 describes assessment for learning, and Chapter 4 outlines approaches and tools that can help educators “link ‘assessment for learning’ to evidence-based instruction in their classrooms on a daily basis” (Fullan et al., 2006). The chapter outlines important planning tools, in the form of the *class profile* and the *individual student profile*, to help educators plan daily assessment and instruction that are “good for all, and necessary for some”. (Profile templates are provided in Appendices A and B.) The integrated process of assessment and instruction described here takes as its premise that teachers need to *know their students*.

Figure 2. Interrelationship of Topics.

This figure illustrates the interrelationship of the topics discussed in Chapters 2 through 4.



Professional learning is the focus of Chapter 5. Commitment to professional learning within the context of school and board communities develops the collective capacity of staff to work together to achieve the fundamental purpose of the education system, schools, and classrooms – that is, high levels of learning for all students. Educators can improve the learning experience of every student when they develop and implement a plan for a shared commitment to high academic goals for their students and engage in collaborative problem solving, continuous assessment for learning, and ongoing professional learning that is job-embedded and site-specific.

An appendix providing questions to guide the implementation of the Learning for All process in schools and school boards (Appendix C) is provided at the end of the document. Also included are a glossary and a list of references.

Throughout the guide, four key features are highlighted by means of graphic icons, as follows:



Key concepts



Tools and resources



Links to helpful resources



Sample Practices – Practices reported by the “Learning for All, K–12” lead school boards in the 2009–10 school year.

2. Instructional Approaches

This chapter provides an overview of instructional approaches⁵ that both respond to the characteristics of a diverse group of students and are precisely tailored to the unique strengths and needs of every student. Only such approaches can be effective in closing the achievement gap.

Before exploring these approaches, it is worth clarifying how “achievement gaps” and the achievement of individual students are connected.

Understanding Achievement Gaps

The term *achievement gap* commonly refers to the disparity in achievement between groups of students. Gaps in achievement can be measured in terms of various factors, such as gender, ethnocultural background, socio-economic status, special education needs, language proficiency, or number of credits accumulated by the end of a particular grade. Achievement gaps can also be defined according to combinations of these factors, such as gender *and* special education needs, or gender *and* socio-economic status, or ethnocultural background *and* credit accumulation by year and grade.

The literature on school effectiveness indicates that contextual and background factors, particularly socio-economic status and parent education, have a significant influence on student achievement.

The term *learning gap* is often used to refer to the gap between a student’s actual achievement and his or her potential for achievement. This document focuses on an integrated process of assessment and instruction that helps *every* student reach his or her potential and, as a consequence, helps to close the achievement gap between different groups of students.

Research confirms that gaps in student achievement can be narrowed and overall improvement in achievement attained if:

1. the responsibility for making these changes is shared by all partners in the education system – students, parents,⁶ educators, and community partners (Campbell, Comper, & Winton, 2007; Kober, 2001; Mortimore & Whitty, 1997; Willms, 2006);
2. there has been a sustained and deliberate focus on individual students’ strengths and needs, assessment for learning, and precision in instruction through evidence-informed interventions (Fullan, 2007).

5. Much of this section is taken or adapted from *Education for All, K–6*, pp. 9–18, 60 and *TIPS (Targeted Implementation and Planning Supports): Developing Mathematical Literacy* (Ontario Ministry of Education, 2004).

6. Throughout this document, *parents* is used to refer to both parents and guardians.



Only by helping every student reach his or her potential can we hope to close the achievement gap between groups of students.

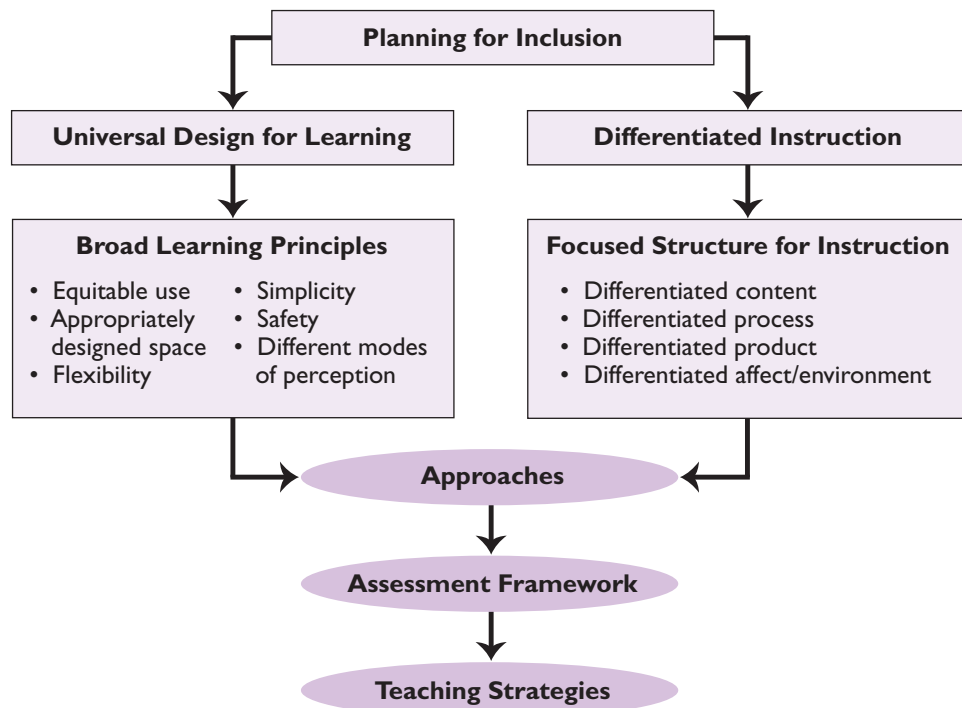
Three Effective Approaches

Instruction that both responds to the characteristics of a diverse group of students and is precisely tailored to the unique strengths and needs of each student can be achieved using the principles and guidelines associated with three instructional approaches:

- Universal Design for Learning (UDL),
- differentiated instruction, and
- the tiered approach to prevention and intervention.

Used in combination, *UDL* and *differentiated instruction* enable teachers to respond effectively to the strengths and needs of all students. UDL provides teachers with broad principles for planning instruction for a diverse group of students, whereas differentiated instruction allows them to address specific skills and difficulties (Raynal & Rieunier, 1998). The two approaches overlap, sharing certain goals and strategies, such as providing a range of instructional strategies, resources, activities, and assessment tools in order to meet the different strengths, needs, readiness, and learning styles or preferences of the students in a class.

Figure 3. UDL and Differentiated Instruction




Source: Adapted from *Education for All, K-6*, p. 9.

The *tiered approach to ongoing prevention and intervention* embodies principles of UDL and differentiated instruction, offers a systematic method for the early identification of students who are experiencing particular difficulties and, through ongoing monitoring of their progress, provides the precise level of support those students need.

All these approaches help improve student achievement because they rely on greater personalization and precision in instruction. Their success depends on educators' clear understanding of their students' strengths and needs, the types of learners they are, their readiness to learn in a given subject at a given time, and the kinds of activities that are likely to engage their interest and stimulate their thinking.

Each of the three instructional approaches is summarized below. Checklists and indicators are provided to assist in implementing and assessing the success of each of the approaches.

Universal Design for Learning



"Universal Design is not just a technique for special education; rather it is a technique to enhance the learning of all students."
(Turnbull, Turnbull, Shank, Smith, & Leal, 2002, p. 92)

"In a diverse classroom, no single method can reach all learners. Multiple pathways to achieving goals are needed."
(Hitchcock, Meyer, Rose, & Jackson, 2002, p. 18)

UDL was inspired by work in architecture on the planning of buildings with a view to accessibility for people with physical disabilities (Turnbull et al., 2002). Architects observed that the added improvements facilitated access for all users, not just people with physical disabilities. An access ramp, for instance, provides a person using a wheelchair with easier access to a building, but it also makes it easier for a parent with a child's stroller, a cyclist, or someone using a walker.

Bolstered by evidence from research, the notion that assistance targeted at a specific group can help everyone found its way into the field of education. Educators began to realize that teaching strategies and pedagogical materials and tools that respond to the special needs of a specific student or group of students can also be useful for *all* students. For example, various types of assistive technology, such as speech-to-text software, organizational software, and interactive whiteboards, enable students who have special education needs to access the curriculum. When these technologies became more widely available, teachers discovered that they could enhance learning for *all* students in the classroom. The discovery has transformed the way in which such technologies are being used in the classroom today. The aim of UDL, then, is to provide access to the curriculum for *all* students, and to assist educators in designing products and environments to make them accessible to everyone, regardless of age, skills, or situation.

UDL encourages teachers to develop a class profile and then plan, from the beginning, to provide means and pedagogical materials that are tailored to draw on the strengths and meet the needs of all students and not only those with special education needs.

The core concepts of UDL can be summarized as follows:

Universality and equity. UDL is intended to ensure that teaching is tailored to draw on the strengths and meet the needs of all students. The “universal” in UDL does not imply that there is one optimal solution for everyone; rather, it reflects awareness of the unique nature of each learner and the need to accommodate differences, creating learning experiences that suit individual learners and maximize their ability to progress (Rose & Meyer, 2002). This means planning learning opportunities that will extend the learning of all students, whatever their level of achievement, and help each one reach his or her potential.

Flexibility and inclusion. The planning of teaching and the time teachers allocate to students’ activities must be sufficiently flexible to provide real learning experiences for all the students, regardless of their performance level. Students are accommodated through:

- a variety of teaching strategies and pedagogical materials that make use of all the senses and that vary in form, level of difficulty, and manner of presentation;
- a variety of technological media and software;
- different types of assessment strategies, involving a range of media, formats, and response options. (*Note:* During assessments, students have access to the same supports that they have during instruction unless those supports undermine the purpose of the assessment.);
- various ways of using space.

An appropriately designed space. Teachers can make sure that:

- all students have a clear line of sight;
- resources such as dictionaries and texts are within comfortable reach of all students;
- there is adequate space for the use of assistive devices or the presence of teacher’s assistants.

Simplicity. Teachers avoid unnecessary complexity and minimize distracting information by:

- communicating consistent and achievable expectations;
- sharing the learning goals of a lesson in student-friendly language;
- arranging information sequentially to clarify its relative importance;
- breaking instructions down into small steps;
- providing descriptive feedback during the learning.

Safety. Safety is a precondition for learning. Classrooms must be safe in both the physical and the emotional sense of the word. They must provide a caring and safe environment that is engaging, inclusive, and respectful of all students and promotes student achievement and well-being, allowing every student to learn to the best of his or her ability.

UDL takes the many components of teaching into account:

- overall and specific objectives and expectations
- teaching strategies and learning situations
- pedagogical materials
- technological tools
- a variety of student products resulting from learning situations
- assessment and evaluation



Assistive Technology and UDL

The use of assistive technology, such as interactive whiteboards, for special education programs and classes provided a powerful starting point for focused discussions about equity, accessibility, and UDL.

Classroom teachers, special education resource teachers, and administrators were challenged and encouraged to think about the deployment of instructional tools to support students with special education needs in the context of school improvement planning. The resulting conversations often involved thinking about how technology might help to improve the achievement of both students with special education needs and students with a range of diverse learning needs in integrated settings.



UDL: Guiding Questions and Checklist

To check:

- overall design of programs, use of space, and presentation of information;
- equity and accessibility for all students;
- flexibility and inclusiveness;
- simplicity and safety.

Guiding questions

- How do I provide for **multiple means of representation**, to accommodate students' different strengths in perception, language, and comprehension (e.g., providing alternatives for auditory and visual information; clarifying vocabulary and symbols; using multiple media; highlighting patterns and big ideas and guiding information processing)?
- How do I provide for **multiple means for action and expression**, to accommodate different physical, communication, and executive-function strengths (e.g., improving access to tools or assistive devices; varying ways in which students can respond; supporting students in goal setting, planning, and time management)?
- How do I provide for **multiple means for engagement**, to accommodate different interests, attention spans, and strengths in self-regulation (e.g., allowing for individual choice, increasing relevance and authenticity, minimizing distractions, providing graduated levels of challenge, fostering collaboration)?⁷

(continued)

7. Adapted from *UDL Guidelines – Educator Checklist Version 2 and Universal Design For Learning Guidelines Version 2.0* (Center for Applied Special Technology, 2011).

A checklist to guide classroom practice

- Use the class profile (see pp. 32–40) and plan from the outset to provide the types of learning materials, resources, and technologies that capitalize on the strengths and address the needs of *all* students.
- Clearly explain the learning goals of each lesson to students, and check to ensure that they all understand.
- Make students aware of what they are expected to learn.
- Ensure that challenges are achievable, that instructional and learning strategies are flexible and varied, and that opportunities are provided to extend learning for all students.
- Provide ongoing assessment, and adjust instruction in response to assessment results, as appropriate, to help each student learn.
- Use a variety of teaching and learning materials that represent all modalities (i.e., that make use of all the senses, that employ different media, and so on).
- Use multiple means of presentation, at various levels of difficulty, as appropriate for the students in the class (e.g., present information using visual, auditory, and kinesthetic formats during instruction). Make varied use of space.
- Ensure access to various types of information and communication technology tools to facilitate learning.
- Ensure adequate space and a minimum of distractions, so that students can concentrate on instructional elements.
- Ensure that the classroom is a caring and safe learning environment.



The **Center for Applied Special Technology** (CAST) is a non-profit research and development organization that has made innovative contributions to educational policies, classroom practices, and related products. The centre's Universal Design for Learning resources can be accessed at: www.cast.org.

Differentiated Instruction



While Universal Design for Learning provides the teacher with broad principles for planning, differentiated instruction allows teachers to address specific skills and difficulties.

(Adapted from Raynal & Rieunier, 1998)

To differentiate instruction is to recognize students' varying levels of background knowledge, readiness to learn, language ability, learning preferences, and interests, and to react responsively.

(Adapted from Hall, Strangman, & Meyer, 2003, pp. 2–3)

The three broad, related concepts that indicate the need for a differentiated approach to instruction have emerged from brain research (Subban, 2006):

1. A safe and non-threatening learning environment encourages learning. Learners who experience discomfort in connection with rejection, failure, pressure, or intimidation may not feel safe in the learning context.
2. Learners must be appropriately challenged. The content of new learning should be neither too difficult nor too easy, so that learners can be comfortable enough to accept the challenge that new learning offers.
3. Learners must be able to make meaning of new ideas and skills through significant association with elements of previous knowledge and experience.

Differentiated instruction (DI) is based on the idea that because students differ significantly in their *strengths, interests, learning styles, and readiness to learn*, it is necessary to adapt instruction to suit these differing characteristics. One or a number of the following elements can be differentiated in any classroom learning situation (Tomlinson, 2004):

- the *content* of learning (what students are going to learn, and when);
- the *process* of learning (the types of tasks and activities);
- the *products* of learning (the ways in which students demonstrate learning);
- the *affect/environment* of learning (the context and environment in which students learn and demonstrate learning).

A differentiated approach, driven by an understanding of the student, is thought to contribute to high levels of both achievement and engagement in learning (Tomlinson, 2004).

Differentiated instruction draws on the theories of Lev Vygotsky, and in particular on the theory of the Zone of Proximal Development (ZPD). Within the ZPD, the student may not yet be capable of solving a particular kind of problem

“Readiness” does not refer to the student’s general ability level, but to the current knowledge, understanding, and skill level a student has in relation to a particular sequence of learning. ... Differentiating instruction based on student readiness involves knowing where particular students are on the learning continuum, then planning program features and instructional strategies, resources, and supports to meet them where they are and move them along this continuum. Some students may require remediation or modified expectations; others may need extensions or opportunities for independent study.

(Ontario Ministry of Education, 2004b, p. 4)

on his or her own, but can do so with assistance and is supported to move on to another level of knowledge. The instructional approach that provides such support at the right times in the student’s cognitive development – that is, at the times that the student is “ready to learn” – is called “scaffolding”. In differentiated instruction, teachers scaffold and tailor instruction to individual students’ needs and understanding, providing the emotional support and opportunities for practice they need.

Differentiated instruction includes:

- **providing alternative instructional and assessment activities;**
- **challenging students at an appropriate level;**
- **using a variety of groupings to meet student needs.**

Differentiated instruction does not include:

- **doing something different for every student in the class;**
- **disorderly or undisciplined student activity;**
- **using groups that never change, or isolating struggling students within the class;**
- **never engaging in whole-class activities with all students participating in the same endeavour.**

(Ontario Ministry of Education, 2004b, p. 1)

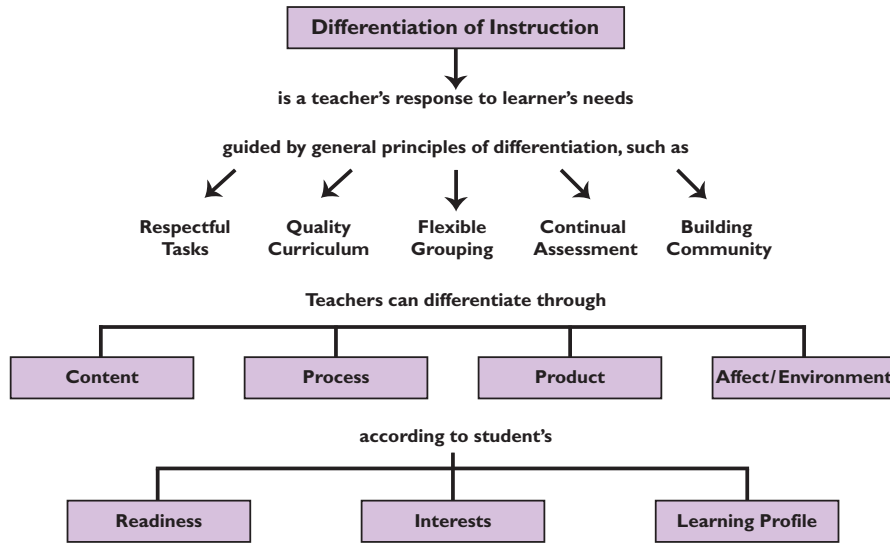
In differentiating instruction according to students’ interests, a teacher attempts to increase the likelihood that any given lesson or project is highly engaging and personally meaningful for each student in the class. Teachers who know students’ interests can vary projects, themes, and examples used in instruction to reflect those interests.

Students’ learning styles and preferences influence their “learning profile”. Understanding how students learn best enables teachers to differentiate instruction effectively. Students may be better at internalizing, processing, and communicating information through *auditory, visual, tactile, or kinesthetic* modes or learning styles. In his *Frames of Mind: The Theory of Multiple Intelligences* (1993), Howard Gardner identified eight types of intelligence – *verbal/linguistic; logical/mathematical; visual/spatial; musical/rhythmic, bodily/kinesthetic; interpersonal; intrapersonal; and naturalist* – which strongly influence the ways in which students learn best.

A key strategy in differentiated instruction is the use of flexible groupings, which allows teachers to assign different tasks to different students, individually or in small groups, based on strengths, interests, learning styles, or readiness. Students may be grouped by interest, but may also have activities set at different levels of complexity (questioning levels, abstract thinking processes) resulting in varying products that employ students’ preferred learning modality (auditory, visual, or kinesthetic) (Theroux, 2004). It is important to note, however, that the approach does not exclude instruction and activities in which all students are working on the same learning task at the same time, whether individually, in groups, or as a class.

To sustain the effectiveness of a differentiated instructional approach, it is critical to conduct ongoing, authentic assessment, and then to adjust strategies and resources according to the assessment results.

Figure 4 on the following page illustrates a wide range of principles and strategies that are associated with differentiated instruction.

Figure 4. A Concept Map for Differentiating Instruction

Source: Adapted from Carol Ann Tomlinson, Association for Supervision and Curriculum Development (ASCD): Summer Conference Material, 2008. Reprinted with permission from ASCD (www.ascd.org).



Multiple Intelligence Profile – for Teachers *and* Students

An online survey tool was developed by a school board to help educators learn about their own multiple intelligences as well as about those of their students. Completing the survey gave the teachers first-hand experience of – and new insights into – the way different kinds of tasks and approaches suit different individuals' particular types of intelligence. The experience supported the teachers' instructional planning and their delivery of differentiated instruction.



Differentiated Instruction: Guiding Questions and Checklist

To check that assessment and instruction are varied to:

- suit diverse learning styles and preferences;
- engage students with diverse interests;
- support students who are at different stages in their readiness to learn and provide scaffolding, emotional support, and opportunity for practice.

Guiding questions

- How can I set up the classroom to support differentiated instruction?
- What elements of the learning environment can I differentiate to help all of my students learn?
- How can I differentiate the ways in which I help students learn new concepts?
- What sorts of questions can I pose in order to stimulate thinking among all of my students?

(continued)

- How can I differentiate the strategies and tools I use to assess students' progress towards their learning goals in a way that enables each student to demonstrate his or her learning?⁸

A checklist to guide classroom practice

DIFFERENTIATE CONTENT

- Vary content (e.g., provide content at different levels of difficulty; enable students to extend knowledge and skills) to suit student readiness, interests, motivational needs, and learning styles.
- Unpack the big ideas of the curriculum to create achievable learning goals.
- Introduce new learning and pose open questions as appropriate to the student's zone of proximal development (ZPD).

DIFFERENTIATE PROCESS

- Use various assessment strategies to match students' strengths, learning style preferences, interests, and readiness.
- Use various types of learning activities and various grouping strategies to draw on students' strengths and provide support in areas that need improvement.
- Use a variety of instructional and management strategies that engage all modalities.
- Provide students with opportunities to choose from an array of activities and projects that involve differentiated processes.
- Monitor students' response to the differentiated strategies used, and assess their progress on a regular basis.
- Provide the accommodations and/or modifications that are specified in the IEPs of students who have special education needs.

DIFFERENTIATE PRODUCT

- Gather achievement data through various assessment tools.
- Engage students' interest by involving them in various different types of projects and problem-solving activities.
- Foster students' awareness of their strengths in learning, and their sense of ownership of their learning, by allowing them to choose the products they will create and the formats or modes of presentation they will use.



Ministry of Education resources on differentiated instruction, developed by the Student Success/Learning to 18 branch, can be accessed on the EduGAINS website at www.edugains.ca/newsite/di2/index.html.

8. Adapted from *Differentiated Instruction Educator's Guide: Getting to the core of teaching and learning* (Ontario Ministry of Education, 2007).



Research findings show a strong positive relationship between engaging students' particular interests as part of their learning and subsequent improvements in a wide range of skills – from social, emotional, and communication skills to sensory and fine motor skills.

How Common Classroom Strategies Support Principles of UDL and Differentiated Instruction

As noted earlier, UDL and differentiated instruction (DI) overlap, sharing a number of goals and strategies, such as the following:

- taking into account the background and experiences of all students to meet their diverse interests, aptitudes, and learning needs;
- varying the form of assessment and instructional materials (e.g., printed text, visual or auditory representations);
- using various types of media;
- providing opportunities for different kinds of activities and different means of demonstrating learning;
- providing a safe and supportive environment that enhances students' ability to learn.

Teachers already use many instructional approaches in their classrooms that support some of the shared principles of UDL and differentiated instruction, including *cooperative learning*, *project-based approaches*, *problem-based approaches*, and *explicit instruction*. The following table summarizes relevant aspects of these approaches.

How Common Classroom Strategies Support UDL and DI			
Cooperative learning	Project-based approach	Problem-based approach	Explicit instruction
<ul style="list-style-type: none"> • Emphasizes small-group work, which suits the emotional needs and learning styles of some students • Groups are composed of students with different abilities and talents, enabling participants to experience the value of their particular strengths • Students work together to achieve specific tasks, which fosters positive interdependence and responsibility • Tasks are structured so that no single team member can complete them on his or her own, which fosters an appreciation of diverse strengths and teamwork 	<ul style="list-style-type: none"> • Facilitates learning through a variety of different projects focused on a particular topic or theme, allowing students to work on topics of particular interest to them, at their own level and pace • Students may work independently or in mixed-ability groups, as suits their particular learning style or emotional need • For group projects, the teacher ensures that students can work simultaneously on a number of different options • The teacher monitors carefully to ensure that students are attempting tasks at the most appropriate instructional level 	<ul style="list-style-type: none"> • Allows students to solve realistic problems by reflecting on best strategies and drawing on prior knowledge of effective approaches used in other problem situations, according to their particular prior knowledge and readiness to learn • Requires careful planning by teacher to provide appropriate cognitive challenges for every student 	<ul style="list-style-type: none"> • Provides suitable learning opportunities for students who benefit most from structured learning, clear direction, and specified processes. Provides structure for students who need more guidance. • Requires teacher to frequently model the use of learning strategies and assessment tools by: <ul style="list-style-type: none"> – verbalizing thought processes, including steps of a learning strategy or process; – providing opportunities for students to practise using the strategy; – mentoring and monitoring students' practices; – providing timely feedback; – guiding students' attempts until they can carry out the strategy independently.

The Tiered Approach



“An extremely effective approach to assessment and intervention is the ‘tiered’ approach, which sequentially increases the intensity of instructional interventions.”

(Vaughn & Fuchs, 2003, as cited in Education for All, K–6, p. 60)

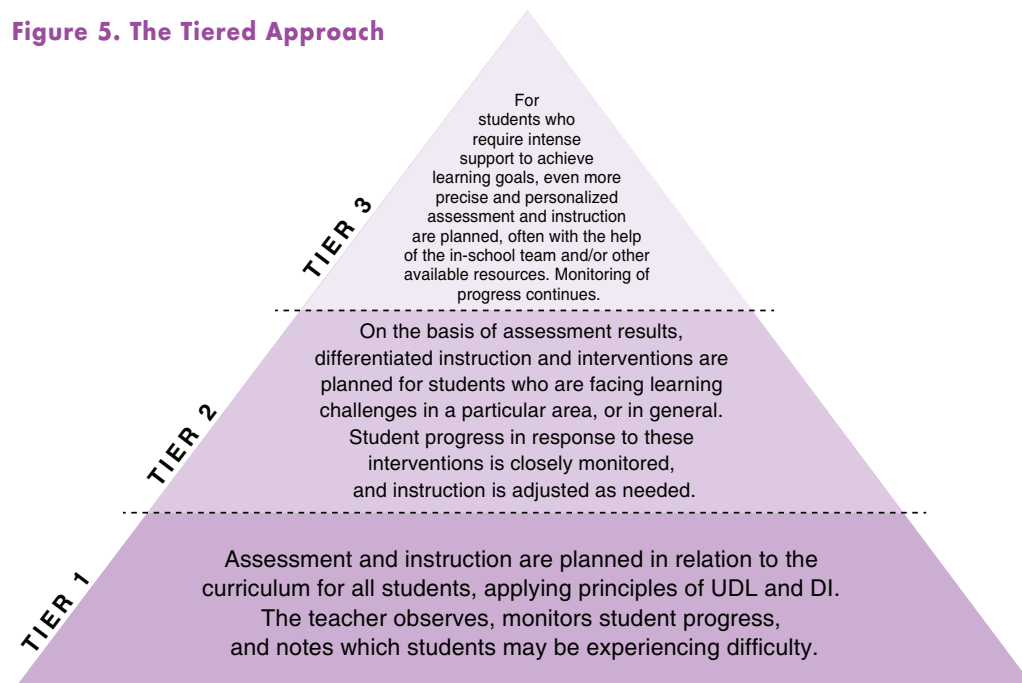
The “tiered” approach to prevention and intervention is a systematic approach to providing high-quality, evidence-based assessment and instruction and appropriate interventions that respond to students’ individual needs. It is based on frequent monitoring of student progress and the use of assessment data, focusing on learning rate and level, to identify students who are facing challenges in learning and to plan specific assessment and instructional interventions of increasing intensity to address their needs effectively. The tiered approach can be used to address both academic and behavioural needs. The nature, intensity, and duration of interventions may be decided by teachers individually or in collaboration with a school team, always on the basis of evidence derived from monitoring student achievement.

The tiered approach can:

- facilitate early identification of both students who may be at risk and students who may be in need of greater challenges;
- ensure appropriate and timely intervention to address these students’ needs and significantly reduce the likelihood that they will develop more intractable problems in the future.

(Vaughn, Linan-Thompson, & Hickman, 2003)

Figure 5. The Tiered Approach



As noted in *Education for All, K–6* (p. 60), the success of the tiered approach depends on the provision of effective professional learning opportunities focused on assessment practices, progress-monitoring methods, and intervention strategies for students with diverse educational needs.



Providing Tiered Behavioural Support

One school used the tiered approach to provide Positive Behaviour Support for students experiencing behavioural challenges. Training was provided for teachers and staff to work together, on a school-wide basis, to identify students in need of support, develop personalized plans for them, monitor their progress, and devise interventions of increasing intensity as required.



The Tiered Approach: Guiding Questions and Checklist

To check for:

- the provision of a continuum of support and a range of strategies to address the needs of diverse students;
- the appropriate adjustment of instruction or goals in response to observations from frequent monitoring and assessment results;
- the use of timely and appropriate preventive strategies, and of intervention strategies of increasing intensity, as needed, from Tier 1 through Tier 3;
- the use of student response data to aid in decisions, with the help of the in-school team, about next steps for students who require additional support (e.g., specialized interventions, professional assessments, and, where appropriate, the development of an IEP);
- the prompt implementation of next steps.

Guiding questions

- On the basis of early assessment data, which of my students require more time and/or support in specific areas of learning?
- What would be the most effective interventions and types of support for these students?
- What tracking tools could I use to monitor these students' progress? Do the assessment data give me an idea of the kinds of adjustments I could make in the type, intensity, and duration of support and interventions?
- When assessment indicates that further support is required, what specific information will the in-school team need to help decide on the most appropriate further interventions?
- What are the accessible resources outside the classroom that can be employed to provide support at Tier 3?

(continued)

(continued)

Checklist to guide classroom practice

- Use strategies that are guided by the principles of UDL and DI to support the learning of all students.
- Use ongoing monitoring of learning for all students to inform instruction.
- Monitor student work closely at Tier 1 and rely on observation and assessment data to provide appropriate prevention and intervention strategies.
- Devise timely and appropriate interventions of increasing intensity to provide the needed support at Tiers 2 and 3, and continue to monitor students' progress.
- Where appropriate, problem solve collaboratively, using a team approach.
- Where appropriate, access available resources outside the classroom.

3. Assessment for Learning

Types of Assessment

Recent research in education, as reflected in the ministry policy document *Growing Success: Assessment, Evaluation, and Reporting in Ontario Schools* (2010), has focused on three types of assessment:

- *assessment for learning*;
- *assessment as learning*;
- *assessment of learning*.

Rethinking Classroom Assessment with Purpose in Mind (Western and Northern Canadian Protocol for Collaboration in Education (WNCP), 2006, pp. 13–14) describes these three types of assessment as follows:

1. *Assessment for learning* is designed to give teachers information to modify and differentiate teaching and learning activities. It acknowledges that individual students learn in idiosyncratic ways, but it also recognizes that there are predictable patterns and pathways that many students follow. It requires careful design on the part of teachers so that they use the resulting information to determine not only what students know, but also to gain insights into how, when, and whether students apply what they know. Teachers can also use this information to streamline and target instruction and resources, and to provide feedback to students to help them advance their learning.
2. *Assessment as learning* is a process of developing and supporting metacognition for students. *Assessment as learning* focuses on the role of the student as the critical connector between assessment and learning. When students are active, engaged, and critical assessors, they make sense of information, relate it to prior knowledge, and use it for new learning. This is the regulatory process in metacognition. It occurs when students monitor their own learning and use the feedback from this monitoring to make adjustments, adaptations, and even major changes in what they understand. It requires that teachers help students develop, practise, and become comfortable with reflection, and with a critical analysis of their own learning.
3. *Assessment of learning* is summative in nature and is used to confirm what students know and can do, to demonstrate whether they have achieved the curriculum outcomes, and, occasionally, to show how they are placed in relation to others. Teachers concentrate on ensuring that they have used assessment to provide accurate and sound statements of students' proficiency, so that the recipients of the information can use the information to make reasonable and defensible decisions.

This document focuses on assessment *for* learning as the tool that enables teachers to develop the knowledge of their students that they need to provide personalized, precise instruction and assessment.⁹

The Benefits of Assessment for Learning

Studies have shown that the use of assessment *for* learning contributes significantly to improving student achievement, and that improvement is greatest among lower-achieving students (Black & Wiliam, 1998).

Assessment for learning is the process of gathering evidence about a student’s learning from a variety of sources, using a variety of approaches, or “assessment tools”, and interpreting that evidence to enable both the teacher and the learner to determine:

- where the learner is in his or her learning;
- where the learner needs to go; and
- how best to get there.

Research confirms that assessment for learning is one of the most powerful tools for improving learning and raising standards, because it is rooted in helping students learn more.

Teachers can adjust instructional strategies, resources, and environments effectively to help all students learn *only if they have accurate and reliable information about what their students know and are able to do at any given time, and about how they learn best*. Ongoing assessment for learning provides that critical information; it provides the foundation for differentiated instruction.

Components of Assessment for Learning

Assessment for learning includes diagnostic assessment and formative assessment:

- **Diagnostic assessment** can include both classroom (educational) assessments and, where appropriate, professional assessments (i.e., speech and language, medical, and psychological assessments providing diagnosis of specific conditions that affect learning). Diagnostic assessments are conducted before instruction begins and provide teachers with information about students’ readiness to learn, and about their interests and attitudes. This information establishes the starting point for new learning, and helps teachers and students set appropriate learning goals. It enables teachers to plan instruction and assessments that are differentiated and personalized to meet students’ learning strengths, needs, interests, and learning preferences.

Diagnostic assessment helps identify what the student brings to his or her learning, in general or with respect to a specific subject. Information can be gathered from various sources – a student’s previous teachers and his or her parents, as well as formal sources, such as the Ontario Student Record. The information gathered provides a baseline that

9. The discussion in this chapter focuses on assessment *for* learning but assumes that teachers simultaneously apply strategies associated with assessment *as* learning in their classrooms, as outlined in *Growing Success*.

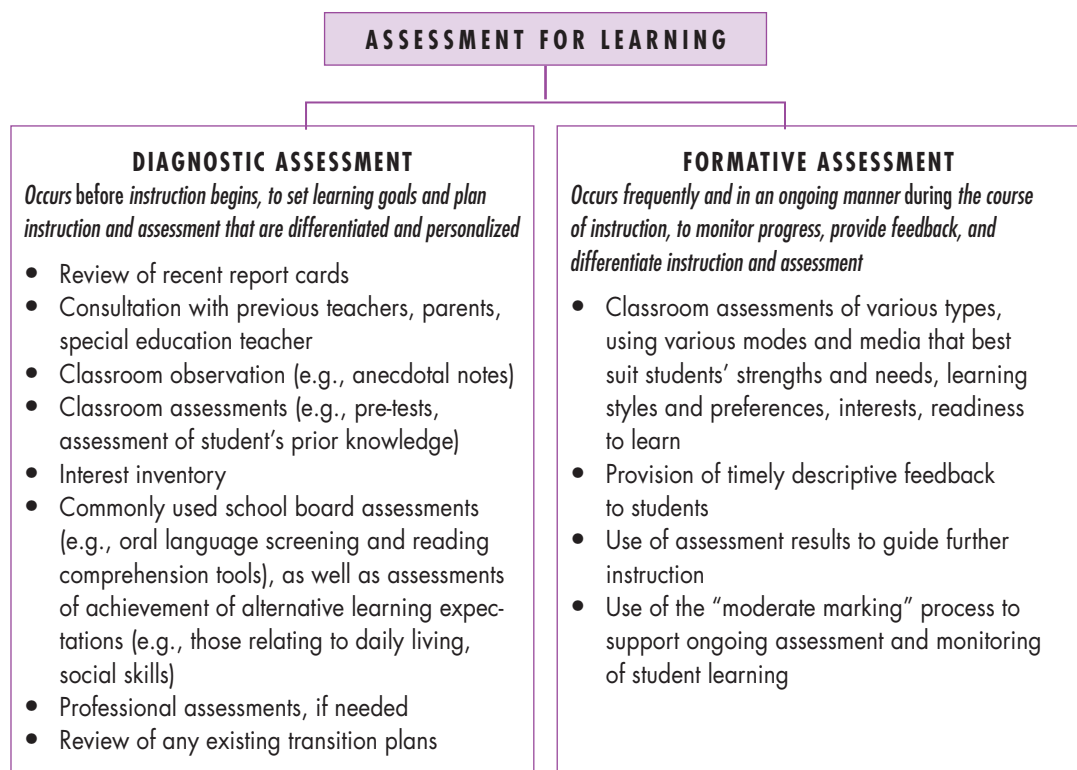
informs further assessment, the results of which can be used in developing a student profile and/or a class profile.

- **Formative assessment** is conducted frequently and in an ongoing manner during learning and is intended to give teachers and students precise and timely information so that instruction can be adjusted in response to individual students' strengths and needs, and students can adjust their learning strategies or set different goals. This use of assessment differs from assessment *of* learning in that the information gathered is used for the specific purpose of helping students improve *while they are still gaining knowledge and practising skills*. When assessment is viewed as integral to learning, students are engaged as collaborative partners in the learning process.

Formative assessment is used to provide benchmarks to confirm the suitability of instructional strategies and specific interventions for individual students as well as groups of students. A gap analysis can be performed on the basis of these benchmarks to guide reflection on past practice and aid in making sound decisions about future instruction.

Figure 6 provides *examples* of tools and measures of diagnostic and formative assessment. (Note that this is not an exhaustive list of commonly used assessments.)

Figure 6. Examples of Diagnostic and Formative Assessment Tools and Measures



Accurate and reliable assessment for learning provides the foundation for personalization and precision in instruction.

The reliability of assessment for learning depends on:

- the identification, clarification, and sharing of learning goals in student-friendly language;
- the student’s understanding of the success criteria of these goals in specific terms – what successful attainment of the learning goals looks like;
- descriptive feedback that helps students consolidate new learning by providing information about what is being done well, what needs improvement, and how to take steps towards improvement; and
- self-assessment that motivates students to work more carefully and recognize their own learning needs, so that they can become effective advocates for how they learn best.

Assessment for learning involves collaboration among teachers, parents, and students, and enables students to experience the successes that come with timely intervention and with instructional approaches and resources that are suited to the ways they learn best. Both factors help build students’ confidence and provide them with the incentive and encouragement they need to become interested in and focused on their own learning.



Drawing on a Variety of Achievement Measures to Support Assessment for Learning

School boards found that a focus on “assessment for learning”, as opposed to “assessment of learning”, along with ongoing support of teachers’ assessment practices, resulted in a greater emphasis on helping students develop higher-order thinking skills and critical literacy skills. Boards discovered benefits in aligning assessment tools and creating a continuum of practices from Kindergarten through Grade 12, and made progress through increased target setting.

Boards apply a wide range of tools to measure student achievement, and many found that data collected through such tools supported assessment for learning. Some boards found ways to consolidate student data generated or gathered in connection with a number of different initiatives and programs or for different purposes. Consolidating the data had clear benefits for instructional and assessment planning.

The various contexts for collecting data included:

- Student Success programs and other at-risk programs
- programs for English Language Learners (ELLs)
- developing Individual Education Plans (IEPs)
- preparing report cards
- developing student/class profiles
- determining graduation rates

(continued)

The various tools through which student literacy achievement data was collected or against which student performance was measured included:

- PM Benchmarks
- Comprehension Attitude Strategies Interests (CASI)
- Developmental Reading Assessment (DRA)
- Oral Language Assessment
- The Observation Survey
- Pre-Referral Intervention Manual (PRIM)
- Education Quality and Accountability Office (EQAO) testing
- Brigance inventories and screens
- Ontario Writing Assessment (OWA)
- Canadian Achievement Tests (CAT•4)
- Culminating Performance Tasks (CPT)
- teacher-created assessments, samples from “marker” students, diagnostic and culminating tasks



Assessment, evaluation, and reporting in Ontario schools is based on the policies and practices described in *Growing Success*, which is available at:

www.edu.gov.on.ca/eng/policyfunding/growSuccess.pdf

Resources have been developed for educators in Ontario to support the application of policies outlined in *Growing Success*. These resources provide practical classroom strategies, developed by educators from a variety of sectors and boards across the province, for combining and applying sound policy and research-based practices. They can be accessed at:

www.edugains.ca/newsite/aer2/index.html



A checklist to guide the use of *assessment for learning* in the classroom

- Break and/or combine curriculum expectations to create appropriate learning goals.
- Clearly identify incremental learning goals in student-friendly language.
- Share the learning goals with students at the start of the teaching and learning process, and clarify these learning goals to ensure a common understanding between teachers and students.
- Apply assessment strategies that are closely tied to the learning goals of each lesson and that can accurately reflect student progress and achievement.
- Always discuss results of assessments with students, providing timely descriptive feedback that helps them understand their strengths and the areas in which they need to improve. Discuss specific steps they can take to make the improvements.
- Adjust instruction – and, if appropriate, learning goals – on the basis of assessment results.
- Encourage students to monitor their own progress, to take responsibility for their learning, to celebrate and take pride in their achievements, to communicate with their teachers and parents about their learning, and, in general, to develop their sense of efficacy with respect to improving their achievement.

(Adapted from Stiggins, Arter, Chappuis, & Chappuis, 2005)

4. Planning Assessment and Instruction



Developing **class profiles** and **student profiles** can help teachers plan daily assessment and instruction that enables every student to learn and achieve success. The resulting strategies and approaches are, according to principles of UDL, “**necessary for some, and good for all**”.

Knowing Your Students

Effective planning of assessment and instruction starts with *knowing your students*. The following steps are part of the process of getting to know all the students in the class:

- gathering information about the students;
- engaging students and parents during the course of information gathering;
- processing and synthesizing information in order to develop an understanding of each student’s strengths, learning style(s), preferences, needs, interests, and readiness to learn;
- selecting and/or developing, and implementing, appropriate and productive combinations of assessment and instructional strategies, activities, groupings, and resources to address the diverse needs of the students in the class

Always Start with the Student

When we believe that it is our students who are the starting point for our unit and lesson planning, not the course content or textbook, we try to live that belief by getting to know our students’ learning needs and preferences and then responding to that knowledge through the opportunities we provide in our classrooms.

Ontario Ministry of Education, 2009

Two highly effective tools that can assist teachers in getting to know their students and in planning effective instruction and assessment are the *class profile* and the *individual student profile*. These tools are discussed in detail in the following sections.

Developing a Class Profile



The class profile is an information-gathering tool, a reference tool, and a tracking tool, all in one. It helps teachers plan effective assessment and instruction for all the students in the class, monitor student progress, and provide timely interventions when needed.

The **class profile** provides a snapshot of the strengths and needs, interests, and readiness of the students in the class. It is a resource for planning that conveys a great deal of critical information at a glance, serving as an inventory of accumulated data. It is a living document, in that it is both a reference tool for planning assessment and instruction at the beginning of the year, semester, or term, and a tracking sheet for monitoring progress, recording changes, adjusting instructional strategies, planning subsequent instruction or interventions, and sharing information with other educators and parents.

The class profile can be developed at the beginning of the school year, semester, or term, as teachers embark on the process of *assessment for learning*. It serves as a tool for recording and summarizing information gathered through *diagnostic assessment* prior to instruction and through *formative assessment* during instruction. A class profile can be updated as the school year, semester, or term progresses. It enables teachers to identify patterns among their students in terms of:

- their learning styles and preferences (often referred to as a “learning profile”);
- their current place in the learning, or “readiness to learn”, with respect to the expectations of the particular subject and grade or course, as well as their learning strengths and areas in need of improvement;
- their interests and talents;
- their socio-affective characteristics;
- the challenges involved in meeting their learning needs, and the supports that are required to address those needs.

Note that the sample class profiles on pages 38 and 39 provide two columns for recording the information noted above for each student, under the headings “Learning Profile” and “Strengths/Areas of Need”.

Why Develop a Class Profile?

The class profile assists in

- sorting, categorizing, and summarizing classroom data;
- detecting patterns of similarities and differences among the students that will help guide the planning of assessment and instruction;
- using data to design differentiated instruction;
- forming flexible groupings;
- monitoring student progress by noting results of ongoing assessments;
- making adjustments in response to assessment results to better focus instruction;
- sharing information among fellow educators and parents.

The profile provides an at-a-glance summary of the strengths and needs of all the students in the class and can serve as a quick reference for daily planning.

School boards may develop (or may already have developed) their own templates for use in their schools, or they may be using different types of charts, diagrams, and electronic templates and data sources from which class profiles can be generated. The particular configuration of the class profile is not critical. What is important is that a consistent process is followed and that common planning tools are used, so that teachers can become familiar with each student's "learning and growth continuum" and can plan personalized and precise assessment and instruction. When a consistent approach is used, a team of educators can be engaged in a systematic and collaborative process to share information and plan effective assessment and instructional strategies. For maximum effect, this collaborative process should always include the students themselves.



Local School Board Approaches to Developing Class Profiles

Several school boards had existing student and class profile frameworks that they worked to align and refine so that teachers in all of their schools would have access to the student data they needed. In some regions, several boards collaborated by forming committees to create common profile instruments and interest inventories. In one board, a simplified, one-page version of a combined student/class profile template was developed, divided into sections under the headings Learning Preferences, Background Information (from the Ontario Student Record (OSR) and other sources), Assessment for Learning (Current Level of Achievement), Teaching Strategies, Assessment Methods, IEP, and Evidence of Growth (a category used in developing report card comments).

The Process of Developing a Class Profile

The process of developing a class profile is described below and illustrated in Figure 7 on page 37.

1. Gathering information about students.

A class profile is developed by gathering information about each student from the following sources:

- Ontario Student Record (OSR)
- any transition plans the student may have
- Individual Education Plan (IEP) if the student has one
- consultations with current and previous teachers
- consultations with parents, and/or parent–student questionnaires
- consultations with students through surveys (e.g., interest inventories, attitudinal surveys) and conferences or interviews
- classroom observation (e.g., anecdotal notes)
- initial assessments (e.g., pretests)
- class profiles from earlier grades
- Education Quality and Accountability Office (EQAO) data

In the course of gathering information from these sources, it may become evident that there is a need for a more intensive focus on particular students. For these students, an individual student profile may need to be developed, perhaps as a collaborative effort by a team of educators that includes the classroom teacher, the special education teacher, and/or other members of an in-school team.



Learning Style Inventories and the Class Profile

School boards used a variety of learning style inventories to inform the development of class profiles, including Gardner’s Multiple Intelligences, Sternberg’s Learning Styles, Sensory Preferences, and A Native Learning Styles Inventory.

Some boards’ web-based learning style inventories were developed and linked to the boards’ student information management system.

At some schools, the information gathered from the learning style inventories was recorded on a class learning style sheet.

2. Organizing and recording the student information on a class profile template.

Each student’s strengths and areas of need, in terms of his or her learning readiness related to the subject and grade or course, interests, and social-behavioural characteristics, are summarized and recorded in a predetermined format or on a template.

3. Selecting instructional strategies and resources based on information in the class profile.

After information from all relevant sources has been reviewed, appropriate instruction that addresses each student's strengths and needs is determined, often in consultation with professional colleagues. As ideas are compiled in a class profile, the range of students' individual and shared strengths, needs, challenges, and interests are identified. Patterns of strengths, needs, styles, and interests among students will emerge from a review of the class profile, and can be used to inform the selection of strategies and resources. Students will benefit from strategies and groupings that are determined by their learning styles, preferences, and particular stages of learning. Students can be grouped according to similar modalities of learning, appropriate media and resources, and/or supports required for assessment and instruction. Opportunities for potentially beneficial pairings and groupings of students with similar or complementary learning styles, personalities, and interests can also be detected.



Improving Student Engagement by Recognizing Diverse Learning Strengths

One board reported that most of its teachers used class profile information to plan for a variety of assessment methods and to teach students about their own learning strengths. Some teachers found that this approach helped the class grow as a cohesive group, because students came to see that peers who learned in different ways were not “weaker” learners. Teachers also noticed that students became more engaged as learners – they enjoyed the variety of assessment methods used and appreciated the opportunity to select assessment methods that suited their personal learning styles.

4. Program planning and the implementation of Universal Design for Learning, differentiated instruction, and, where needed, interventions of increasing intensity (the tiered approach).

Taking into account the requirements of the curriculum, the instructional strategies selected, and the patterns and emerging trends in the class, educators develop their program plans. The principles of Universal Design for Learning and differentiated instruction ensure that planning is flexible, supportive, adjustable, and focused on increasing *all* students' access to the curriculum. Plans should incorporate a range of strategies and a continuum of support, including support for students who need greater challenges.



Benefits of the Class Profile

School boards reported that the introduction of class profiles led to an increased use of pre-assessment data for setting learning goals, an increased number of mid-way checks, and rich post-instructional assessments, as well as an improved understanding and more frequent application of tiered intervention. Teams commented that teachers in their schools had developed an appreciation of class profiles not as static forms, but as an integrated element of an effective curriculum, assessment, and instructional planning cycle.

In general, school boards found class profiles to be a valuable tool for teachers in differentiating and personalizing their instruction, devising effective assessment and evaluation practices, and helping develop students' understanding and use of metacognition.

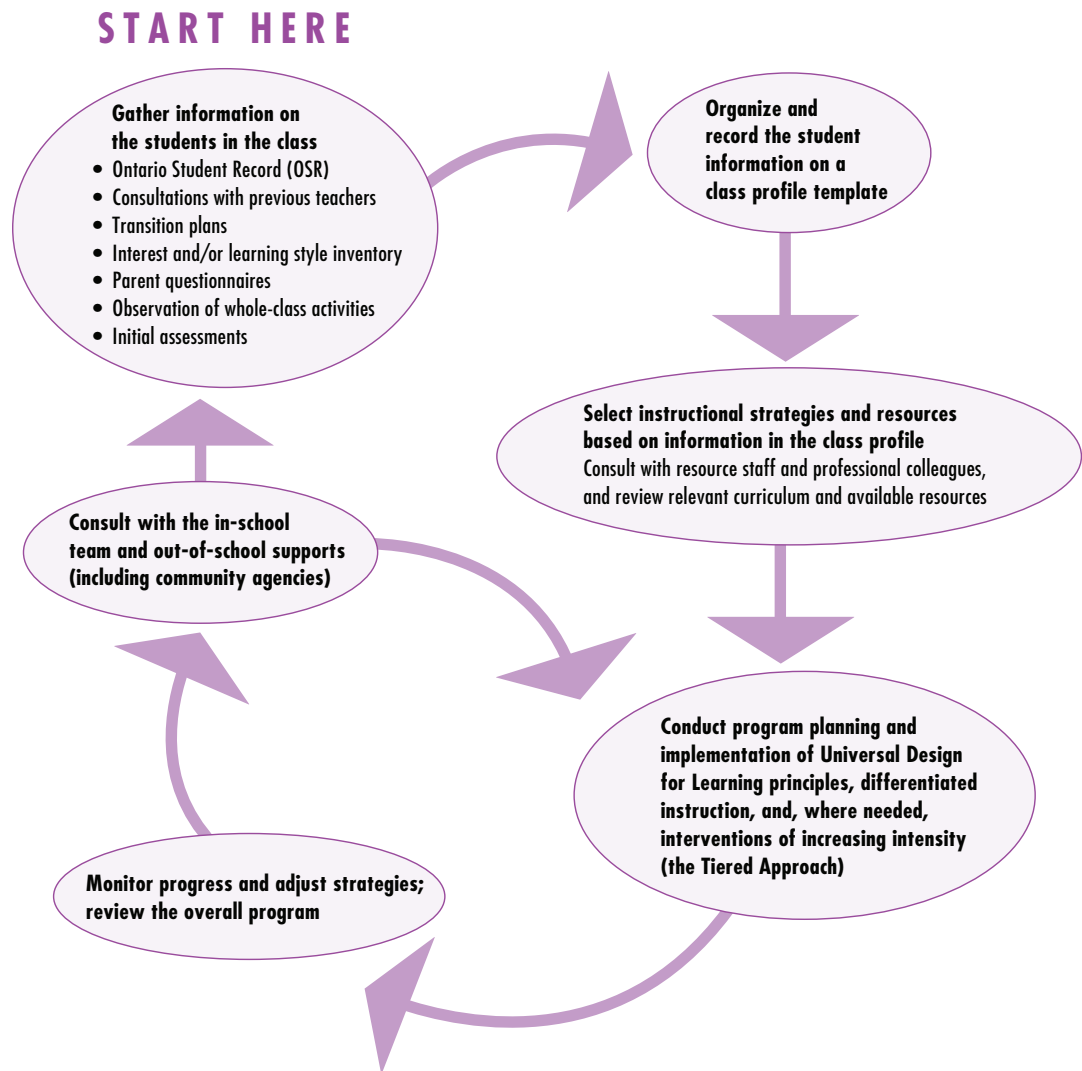
5. Monitoring progress and adjusting strategies; reviewing the overall program.

Over time, during the course of instruction and ongoing assessment, new information about students' progress and growth is gathered, based on their response to instructional strategies and interventions and the overall learning environment. Progress and growth, or the lack of it, are noted and strategies are reconsidered, if adjustments are needed. In the case of students who have persistent learning challenges, the need for more intensive instructional support or for special intervention by an in-school team or external specialist may also be noted.

6. Consultation with the in-school team(s) and out-of-school resources (including community agencies).

After having tried selected strategies for a reasonable amount of time, educators may opt to seek further assistance for some students, from the in-school team(s) and/or out-of-school professionals or agencies. An in-school team collaboratively reviews instructional strategies and interventions that have been implemented, as well as the student's responses to them, and assesses their effectiveness. The team may consider whether and how to incorporate recommendations made by out-of-school professionals.

Figure 7. The Process of Developing a Class Profile



Sample Class Profiles

A sample elementary school class profile (Senior Kindergarten) and a sample secondary school class profile (Grade 9 Applied Mathematics), respectively, are shown on pages 38 and 39.

A blank **sample template** for a class profile is provided in Appendix A.

Sample Class Profile – Elementary*

Teacher: Ms. B. **Grade:** Senior Kindergarten **Date Started:** Sept. 2011

Student	Learning profile**	Strengths/Areas of need (achievement/readiness, interests, learning needs, social/emotional strengths and needs)	Instructional strategies and resources; assessment tools; accommodations	Evidence of improvement in learning	Adjustments in instruction/Other interventions, if needed	Available supports and resources	Other relevant information
Afreen	A / MR	Not enough assessment information so far. Further observation needed.					
Carter	T / LM	Enjoys counting, sequencing. Beginning to identify letters and consonant sounds. Shy.	Provide manipulatives. Involve in team projects.	Nov. 20: Shows continuing progress in sound recognition.			
Mark	V / MR	Responds well to visual cues and consistent routines. Good counting, sorting, sequencing skills. Enjoys peers but also needs quiet personal space. Diagnosed with ASD; is easily overwhelmed and loses focus. Needs transition cues, frequent positive reinforcement. (Prepare individual student profile)	Present information in small chunks. Use visuals; transition picture cards (e.g., visual schedule generated by computer software). Pair with student who needs support in math (and who isn't too rambunctious). Provide quiet space for academic tasks. Give positive reinforcement.	Nov. 15: Good progress – retreats only occasionally; responds to familiar visual cues when making transitions.		Receives support from board ASD team and school resource staff.	Has behaviour plan and safety plan.
Nigel	A / In	Enjoys books; counting skills lagging.	Perhaps pair with Mark.				
Maia							
Shelley							
Maurice	T / BK	Eager to learn to read. Has good sense of humour; enjoys interacting with peers. Strong verbal expressive language. Needs attention and focus cues.	Provide card with graphic depiction of task for him to consult until he completes the task. Provide manipulatives. Allow additional time for him to express himself, but watch that he doesn't dominate groups. Use cars in examples. Provide access to computerized phonics programs.	Nov. 15: Shows some improvement in attention focus during group time; will continue to require redirection.	Seating arrangement: Proximity to teacher during circle time.		Loves cars.
Anita							
Susie	V / I	Sociable. Well-liked by peers. Demonstrates leadership qualities. Enjoys arts.	Provide opportunities for group work. Oral presentation. Pair up with other students as a peer mentor.	Nov. 15: Shows improved cooperation and turn-taking.	Nov. 15: provide more opportunities for leadership.		Takes dance classes after school.

* This sample class profile illustrates a work in progress, which is why some of the sections are blank or incomplete. At any given time during the school year/term/semester, a classroom teacher may choose to focus on a student or a group of students and to collect information on specific curriculum areas and/or areas of focus.

** The learning profile may include learning style, type of intelligences ("learning preference"), as well as preferences or traits related to socio-economic or cultural background.

Learning styles: A – Auditory; V – Visual; K – Kinesthetic; T – Tactile
Learning preferences: VL – Verbal Linguistic; LM – Logical Mathematical; VS – Visual Spatial; BK – Bodily Kinesesthetic; MR – Musical Rhythmic; N – Naturalist; I – Interpersonal; In – Intrapersonal

Sample Class Profile – Secondary*

Teacher: Mr. S.

Grade: Grade 9 Applied Math

Date Started: Sept. 2011

Student	Learning profile**	Strengths/Areas of need (achievement/readiness, interests, learning needs, social/emotional strengths and needs)	Instructional strategies and resources; assessment tools; accommodations	Evidence of improvement in learning	Adjustments in instruction/Other interventions, if needed	Available supports and resources	Other relevant information
Angela	A / VL	Enjoys independent reading and creative writing; auditory learner; loves animals; strong in language and other subject areas, except math; difficulty understanding new abstract math concepts. (Prepare individual student profile)	Pair verbal instruction with written format; provide opportunities for projects, written reports; allow extra time to process information and complete projects. (See individual profile)	Nov. 15: shows improvement in understanding of decomposition of 2-D shapes, including the Pythagorean relationship, especially when real-life context is part of the problem, and when discussing possibilities with a learning partner. Beginning to connect linear relationships to linear growing patterns involving tiles.	Provide more access to assistive technology when possible. Provide regular access to Representing Linear Growing Patterns (CLIPS). Arrange for peer mentor. Involve Student Success Team.	Creative Writing Club; guidance to support pathway transition to Gr.10 academic math through transfer course; local vet clinic.	Had IEPs in Gr. 7 and 8 for math.
Keith	T / LM	Enjoys hands-on activities projects, puzzles, games, patterns; creative thinker.	Provide authentic, hands-on experiences; involve in team projects; encourage higher-order thinking skills; provide opportunities for leadership.				
Sean	V / I	Responds well to visual cues and positive reinforcement; understands concepts when explained in a logical fashion; enjoys working on the computer; often needs quiet personal space to focus on work; requires preparation to support transitions. (Prepare individual student profile)	Present information in small chunks and in logical fashion with visual support; encourage the use of a personal organizer for daily schedule and locker; provide prompts and preparations for all transitions; provide quiet space for academic tasks.	Nov. 15: Formative assessments show success in working with 2-D and 3-D measurements, and particular interest in applications of optimization.	Update IEP with new Gr. 9 applied math expectations and social skills; provide peer mentor support for self-advocacy skills and transitions.	Guidance and Resource support for social skills; consultation with In-School Support Team if required.	Previous years' behaviour support plans reviewed; safety plan removed.
Amanda	A / In	Enjoys books; likes quiet work space and independent projects.	May need extra time to process information and complete assignments; use written assignments.				
Troung	V / LM	Visual learner, attention to details and focuses on tasks; English language learner.	Pair verbal instructions with visual support; provide opportunities to complete assignment in first language and to work with another student in class.	Nov. 15: More comfortable participating in small-group work; is volunteering answers from time to time.	Continue to monitor English language development.	Enrolled in ESLAO first semester; Guidance and ESL team; Community Centre access.	Arrived in Canada one year ago with limited English language skills.
Haneem	T / I	Has sense of humour and social skills; well liked by peers; needs attention and organization support.	Provide opportunities for leadership; encourage the use of personal organizer and self-monitoring skills.				

* This sample class profile illustrates a work in progress, which is why some of the sections are blank or incomplete. At any given time during the school year/term/semester, a classroom teacher may choose to focus on a student or a group of students and to collect information on specific curriculum areas and/or areas of focus.

** The learning profile may include learning style, type of intelligences ("learning preference"), as well as preferences or traits related to socio-economic or cultural background.

Learning styles: **A** – Auditory; **V** – Visual; **K** – Kinesthetic; **T** – Tactile

Learning preferences: **VL** – Verbal Linguistic; **LM** – Logical Mathematical; **VS** – Visual Spatial; **BK** – Bodily Kinesesthetic; **MR** – Musical Rhythmic; **N** – Naturalist; **I** – Interpersonal; **In** – Intrapersonal

In each of the sample class profiles, there are notes pertaining to students who may require additional support to help them reach their full potential in learning. In the elementary class profile, one of those students is Mark. In the secondary profile, one of them is Angela. A description of each of these students is provided below, to demonstrate how the details of their stories are incorporated into the class profile:

Elementary Class Profile – Mark’s Story

Mark is a 5-year-old Senior Kindergarten student who enjoys counting, sorting, and sequencing. Mark responds well to routines and consistency in the classroom. He is meticulous about putting other students’ toys away on the toy shelf in a very particular way. Mark was diagnosed at the age of 2 with Autism Spectrum Disorder (ASD). In class, Mark struggles to focus and easily becomes overwhelmed. When he feels overwhelmed, Mark takes his blanket and hides in the cloakroom. He can become very anxious and sometimes has loud outbursts. He struggles to communicate with his peers and withdraws if he cannot get his feelings across.

Secondary Class Profile – Angela’s Story

Angela is a 14-year-old girl in Grade 9. She is an avid reader and loves to play the piano. She spends much of her free time on the family’s small hobby farm, caring for the animals. She aspires to be a veterinarian and to operate her own animal hospital. Angela is currently taking mostly academic courses, as well as the applied mathematics course. She has limited social interactions with her peers and often chooses to work alone. It is evident from Angela’s OSR that IEPs were developed for her in Grades 7 and 8. The IEPs specified accommodations (only) that Angela required to support her in learning abstract concepts and developing problem-solving skills (e.g., extra time, hands-on activities, concrete materials). The IEPs applied specifically to mathematics.

Developing a Student Profile



The student profile gives detailed, in-depth information about the learning strengths and needs of the individual student. It supplements the class profile as a tool for planning precise and personalized assessment and instruction for students who need extra attention and support in particular areas of learning.

The individual student profile provides detailed information about the student to guide the selection of assessment tools, instructional strategies, and, where appropriate, individualized supports that are best suited to that student’s learning style, preferences, strengths, needs, interests, and readiness. A student profile provides the detail teachers need in order to devise assessment and instruction that take into account the student’s particular needs while capitalizing on his or her particular strengths.

One of the key pieces of information detailed in the individual student profile is the student's *current instructional level* in the area (or areas) that present challenges for the student. Essentially, the student profile facilitates the “gap analysis” that needs to be performed in order to determine where the student's abilities are relative to the age-appropriate stage of development in particular areas of learning. On the basis of this analysis, instruction can be provided that directly targets the critical skills that the student needs to develop.

Some of the reasons for developing an individual student profile are outlined in the following box.

Why Develop a Student Profile?

Developing an individual student profile provides educators with the opportunity to:

- consider how to use and build on the student's strengths;
- consider ways of motivating the student and supporting his or her learning in a particular subject by drawing on strengths that the student has demonstrated in other subjects, prior knowledge in various subjects, learning style or preference, and interests outside school;
- develop specifically targeted assessment and instruction for the student;
- consider how the student would benefit from particular groupings of students for different kinds of activities;
- foresee the need for, and plan for the use of, particular supports and accommodations, appropriate media and technologies, and particular forms and modes of instructional and assessment activities, tools, and resources.

Individual student profiles can promote greater precision and effectiveness in instruction and assessment, particularly for students who:

- are not reaching their full learning potential;
- are facing social-emotional, behavioural, or organizational challenges;
- are experiencing challenges with a particular transition or with transitions in general;
- have personal circumstances that are interfering with their learning;
- have become disengaged from school activities;
- may have special education needs.

For students who need additional support, the planning of assessment and instruction – from the initial gathering of information through to the tracking of progress, the adjustment of strategies, and the possible use of interventions – is an integrated and often collaborative process. It begins with the teacher in the classroom, and it is supported as needed by the in-school team(s). When chosen teaching strategies have been applied for an adequate period of time, their effectiveness is reviewed, in collaboration with members of the in-school team, who may provide further advice and recommendations. Ongoing communication between classroom teachers, the principal, the student, parents, other educators, and members of in-school teams is critical so that information is shared and efforts coordinated successfully on behalf of the student.

The information gathered for an individual student profile is an important resource for members of in-school teams and any other educators or professionals considering the needs of students who require additional support, particularly students for whom an Individual Education Plan (IEP) is being considered.



Benefits of the Student Profile

Some boards found that student profiles had the effect of gradually changing teaching practice by promoting a more holistic view of the student. They caused teachers to focus more on – and to program for – the student’s strengths, and not only his or her needs. There was a recognition that while students’ needs did not always change significantly over time, their strengths could grow and be used to improve learning. As a result, particular students were seen to develop greater self-confidence and begin to self-actualize.

The Process of Developing a Student Profile

The steps for developing a student profile parallel those for developing a class profile, but call for more intensive research and scrutiny of information sources and more varied and specifically targeted assessments to better understand the nature of the student’s strengths and needs (see Figure 8 on page 46).

1. Gathering information

For the individual student profile, it is important to gather and record information similar to that required for the class profile, but also to delve deeper into areas such as:

- current levels of achievement and progress in developing learning skills and work habits (from the most recent provincial report card and EQAO data);
- readiness to learn, particularly in relation to specific subject areas and/or curriculum expectations (e.g., from classroom observations, surveys, pretests);
- learning strengths, styles, and preferences;
- motivational needs and interests (from interest inventories, questionnaires, classroom discussions);
- learning needs, and any additional support, accommodations, and/or types of challenges that motivate and enable the student to learn and to demonstrate learning;
- social and emotional strengths and needs (e.g., self-management, getting along with others, social responsibility), including the capacity to adjust to transitions;
- available resources and supports that help meet the student’s needs;
- other relevant information, such as the kind of activities the student pursues outside the school.



An Online Database to Support Profile Development

Some school boards developed online databases to support the process of:

- developing class/student profiles;
- tracking and monitoring student achievement;
- providing data to inform more personalized and precise instruction and assessment.

The databases proved to be an invaluable resource for all educators in the boards, from classroom teachers and in-school teams to school and board administrators.

Sources of information are also similar to those used to prepare the class profile:

- **Ontario Student Record (OSR).** Delving deeper into the Ontario Student Record (OSR) can provide a wealth of information about a student and his or her academic history, strengths, and areas of need. Information about the student's current and recent levels of achievement in various subjects or courses can be derived from the report cards held in the OSR. Report cards also provide important information about learning skills and work habits that affect learning.

The OSR is a valuable source of information that is too often overlooked. School boards and schools need to make the necessary arrangements and communicate clear procedures for allowing educators timely access to students' OSRs before the start of the school year or semester.



Benefits of Consulting the OSR

Teachers involved in developing student profiles at various boards commented on the wealth of information they were able to gain from the documents in the OSR (e.g., Ontario Secondary School Literacy Test (OSSLT) scores, psycho-educational assessments) about the students as learners.

The Ontario Student Record (OSR)

The OSR is the official record of a student's educational progress through schools in Ontario. It consists of the following components:

- an OSR folder
- provincial report cards
- an Ontario Student Transcript (OST)
- a documentation file, where applicable (contains educational and professional assessments, IEP, transition plan, etc.)
- an Office Index Card
- additional information identified as conducive to the improvement of the instruction of the student

For more information on the OSR, see *The Ontario Student Record (OSR) Guideline*, 2000 (currently under review).

- **Consultations with parents, students, current and previous teachers, school team(s), the special education teacher, community partners.** Consultations with parents, students, educators, and community partners who have been involved with the student's education will provide critical insights that cannot be obtained from other sources.
- **Classroom observation and other classroom assessments.** Ongoing classroom observation, along with the use of various assessment tools that are closely linked to the learning goals and objectives of each lesson and that are designed in a way that enables the student to best demonstrate his or her learning, is critical for determining the student's current achievement level and readiness to learn. Classroom observation and assessments also provide information about a student's general learning behaviour and help the teacher track and analyse changes in the student's learning behaviour. Such information enables the teacher to personalize and provide more precise instructional strategies.

2. Providing Accommodations to Help Meet Student Needs

The information gathered for the student profile will provide educators with more in-depth information about individual students' learning strengths, styles, preferences, interests, and readiness to learn. This information will inform considerations of the types of accommodations¹⁰ that might enhance classroom dynamics and help individual students in the class learn and demonstrate their learning. Providing appropriate accommodations is a significant step in applying the principles of UDL – that is, ensuring that planning is flexible, supportive, adjustable, and focused on increasing access to the curriculum by all students. Accommodations can include adjustment of timelines on assignments and projects, seating arrangements and grouping strategies, access to information and communications technologies (ICT), and access to various types of organizational tools (e.g., advance organizers, visual schedules).

10. Although the term *accommodations* is typically used in connection with students who have special education needs, as well as English language learners, in this document it is being used more broadly, in reference to ways of meeting the learning needs of *all* students.

3. Devising Instructional Strategies, Monitoring Progress, and Determining Next Steps

A review of all the information gathered serves as the basis for a “gap analysis” to determine where the student’s achievement is relative to the expectations of the curriculum for a particular grade or course. Instruction and interventions are designed accordingly, to target directly the critical skills that the student needs and to provide any additional supports and/or challenges that are appropriate for the student. The student’s response to the instructional strategies and interventions is monitored. The information gleaned about the student’s progress and growth is used to determine whether there is a need for increasingly intensive and/or specialized interventions, using the tiered approach.

There may be times when consultation with the in-school team(s) is necessary. The team may suggest other strategies or accommodations or may recommend that the student receive further educational and/or professional assessments. Where appropriate, the team may also recommend that an IEP be developed for the student to address special education needs.



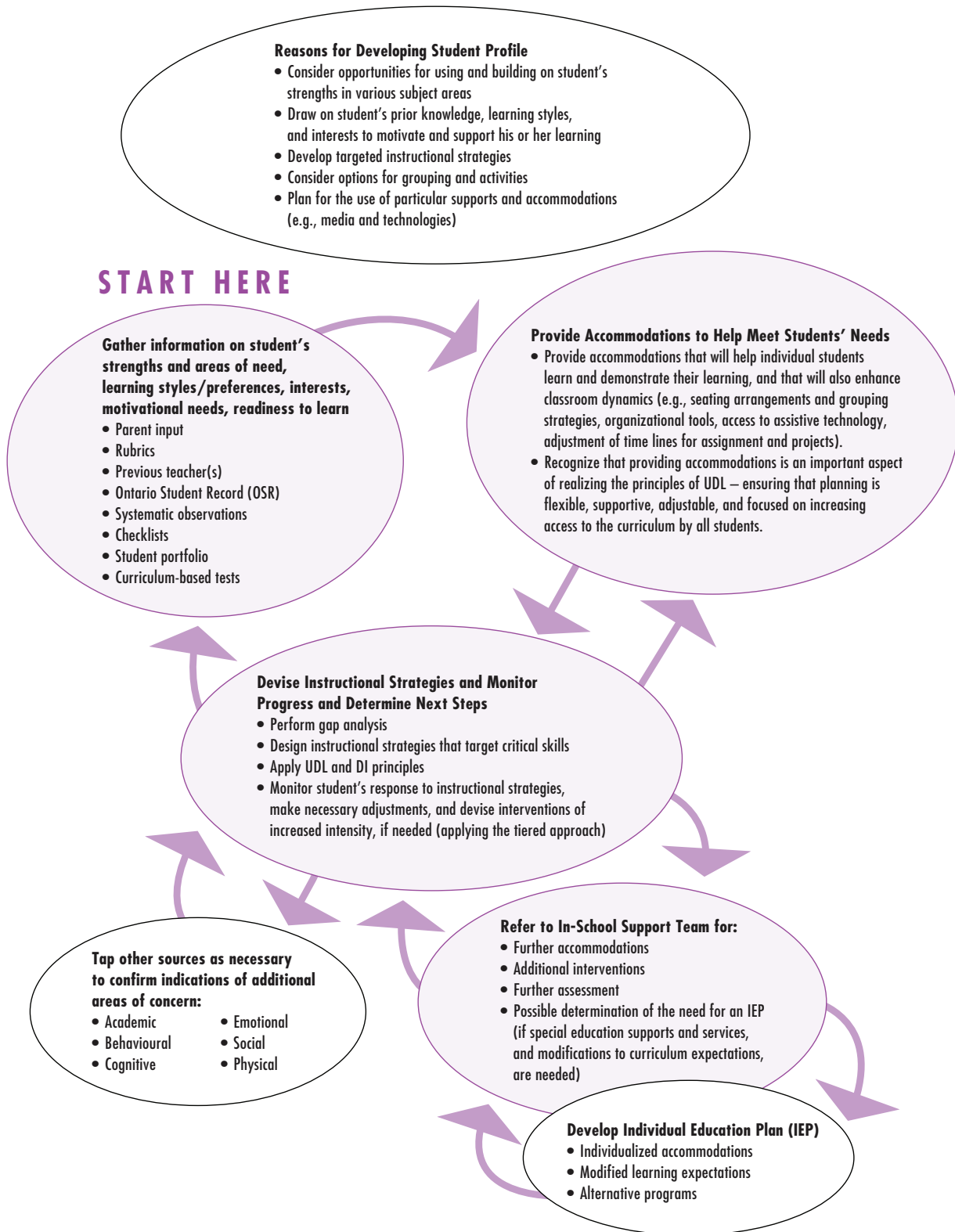
Sample Student Profiles

A sample individual student profile for an elementary school student – Mark – is presented on page 47. Mark, who was described on page 40, is a member of the Kindergarten class represented in the sample elementary class profile.

A sample profile for a secondary school student – Angela – is shown on page 48. Angela, also described on page 40, is a member of the class represented in the sample secondary class profile.

A blank **sample template** for a student profile is provided in Appendix B.

Figure 8: The Process of Developing an Individual Student Profile



SAMPLE STUDENT PROFILE – ELEMENTARY

Name: Mark Age: 5
 Grade: Senior Kindergarten
 School: Sunflower P.S. Date: September 2011

Sources of Information
*(Identify sources of information and assessments to be conducted.
 Check box and note date when a source has been reviewed or a new assessment completed.)*

Review of OSR, including current and previous report cards <u>Sept. 11, 2011</u> (reviewed <i>Early Development Instrument (EDI)</i> , assessment information, intake form, etc.) Consultation with parents <u>Sept. 22, 2011</u> Consultation with previous and current teachers <u>Jun. 2011</u> Consultation with support team <u>Sept. 22, 2011</u> (Board ASD team) Classroom observation checklist <u>Oct. 2, 2011</u>	Educational assessments (e.g., pretests related to particular curriculum expectations) <u>Oct. 8, 2011</u> Interest and/or learning style inventory <u>Sept. 10, 2011</u> Work samples, assignments, projects _____ Portfolios _____ Teacher-student conferences _____ Peer and self assessments _____ Other (specify) _____
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Findings from Information Sources and Assessments – Strengths and Areas of Need

Current achievement levels, learning skills/work habits and readiness to learn	Learning styles/preferences and needs, interests, social/emotional strengths and needs	Other relevant information
<ul style="list-style-type: none"> • average oral expressive language • recognizes own name (is able to point to it) and knows that the first letter is "M" • counts to 20 by rote • recognizes most upper-case letters and some lower-case letters of the alphabet in isolation • is able to follow simple pattern books • is able to follow personalized pictorial schedule 	<ul style="list-style-type: none"> • a visual learner; responds well to pictorial schedules and visual prompts when making transitions • enjoys counting, sorting, and sequencing • enjoys working with puzzles • responds well to consistent routines in the classroom; works well when learning materials and toys are arranged in an orderly fashion • enjoys cartoons and drawing cartoon characters • is sensitive to loud noise • can easily become overwhelmed; loses focus • often plays on his own • benefits from positive reinforcement 	<ul style="list-style-type: none"> • transition plan needs to be updated

Assessment and Instruction

Considerations for Instructional Strategies	Considerations for Assessments	Available Resources and Supports
<ul style="list-style-type: none"> • provide frequent breaks and opportunities for movement • break information and tasks into small chunks • use individual pictorial schedule (transition from concrete pictorial to visual schedule) • use visual prompts and provide preparation for transitions • provide access to computer when possible • use positive reinforcement • use puzzles and games where applicable • pair up with another student as a 'buddy' 	<ul style="list-style-type: none"> • share and clarify learning goals • provide timely and descriptive feedback • initiate self and peer assessment where appropriate • provide a quiet space and extra time for task completion • allow for frequent breaks • use visual format 	<ul style="list-style-type: none"> • in-school support team • special education resource teacher • board ASD team/transition team

SAMPLE STUDENT PROFILE – SECONDARY		
Name: <u>Angela</u>		Age: <u>14</u>
Grade: <u>9 Applied Math</u>		
School: <u>Eternal Hope S.S.</u>		
Number of Credits Accumulated: <u>0</u>		Date: <u>Sept. 2011</u>
<p>Sources of Information <i>(Identify sources of information and assessments to be conducted. Check box and note date when a source has been reviewed or a new assessment completed.)</i></p>		
Review of OSR, including previous report cards <u>Sept. 2011</u> Consultation with parents <u>Oct. 2011</u> Consultation with previous and current teachers <u>Jun. 2011</u> Consultation with support team <u>Nov. 2011</u> Classroom observation checklist <u>Sept. 2011</u> Educational assessments (e.g., pretests related to particular curriculum expectations) <u>Sept. 2011</u>		Interest and/or learning style inventory <u>Sept. 2011</u> Work samples, assignments, projects <u>Nov. 2011</u> Portfolios <u>Sept. 2011</u> Teacher-student conferences <u>Oct. 2011</u> Peer and self assessments _____ Other (specify) <u>Grade 8 IEP</u>
Findings from Information Sources and Assessments – Strengths and Areas of Need		
Current achievement levels, learning skills/work habits and readiness to learn	Learning styles/preferences and needs, interests, social/emotional strengths and needs	Other relevant information
<ul style="list-style-type: none"> A review of Angela’s most recent Provincial Report Card indicates achievement at 85% or above in all Gr. 8 subject areas except math, in which she achieved at 60% and below. An initial assessment in Gr. 9 applied math indicates a weak foundation in number sense and numeration, which will affect her understanding of new concepts in number sense and algebra. There are also indications of weak skills in geometry and measurement, and in some mathematical processes (problem solving, reasoning, and proving). 	<ul style="list-style-type: none"> auditory learner verbal/linguistic enjoys independent reading enjoys reading fiction and creative writing intrapersonal preference hands-on, tactile learner enjoys working with animals; volunteers at veterinary clinics in the community accomplished pianist needs a peer mentor/tutor in math needs to have new concepts explained in a concrete way needs to have math processes broken down into smaller steps 	<ul style="list-style-type: none"> Had IEPs in Grades 7 and 8 that outlined required accommodations (applying to work in math) In order to access Gr. 10 academic math, will need MPM2D and will have to take a transfer course in summer 2011 Needs to develop self-confidence and self-advocacy skills
Assessment and Instruction		
Considerations for Instructional Strategies	Considerations for Assessments	Available Resources and Supports
<ul style="list-style-type: none"> supplement oral instructions with written explanations allow extra time to process new abstract concepts use real-life examples, concrete materials, and hands-on activities break down math processes into smaller chunks provide access to assistive technology, if possible 	<ul style="list-style-type: none"> share and clarify learning goals provide timely and descriptive feedback initiate self and peer assessment where appropriate allow extra time for math assignments, projects, and exams provide assistive technology, when possible assign hands-on projects, and written and/or oral reports when possible 	<ul style="list-style-type: none"> Student Success Team local veterinarian clinic peer mentor writer’s club in school computer lab/assistive technology lab resource room

Planning for Student Transitions

All students in Ontario schools make various kinds of transitions. When transitions are planned and managed appropriately, they can be learning opportunities for students, helping them develop resiliency and the capacity for self-advocacy.

As students progress along their individual “learning and growth continuum” from Kindergarten to Grade 12, they may be involved in some or all of the following transitional experiences:

- entry to school;
- transitions from one activity or setting to another, or from one classroom to another;
- transitions between grades;
- a move from one school to another or from a community agency to a school;
- a move from a First Nation school to a provincially funded school;
- the transition from elementary to secondary school;
- the transition from secondary school to a postsecondary destination (apprenticeship, college, community living, university, and/or the workplace).

The information about individual students’ strengths and needs gathered in developing a class or student profile can contribute to effective transition planning. Personalized and precise transition planning provides the foundation for a successful transitional experience that can help the student learn to cope with change and adapt to a variety of settings.



Class/Student Profiles and Transition Planning

At one board, teachers from three schools – one primary/junior, one intermediate, and one secondary – were selected to participate in a professional learning community (PLC) focused on the Learning for All project. In these three schools, students tend to progress from the junior to the intermediate school, then on to the secondary school. A long-term goal of the project was to pass profiles developed in one grade on to teachers in the next grade as the students moved through the grades on their way to secondary school graduation.

The profiles were shared with the schools’ Student Success Leaders and Curriculum Program Leaders, superintendents, and Information Services staff. Information Services developed programs for the electronic collection of student achievement data and for the use of relevant data in applications such as an **electronic transition form**, used to assist students making the transition from Grade 8 to Grade 9.

The process of developing and reviewing an effective transition plan involves consultation with the student and with significant individuals in his or her life, including educators, parents, and other relevant professionals.

Planning major transitions that are more complex and that include significant changes to many aspects of a student's routines may require collaboration among the in-school team(s), parents, and the community.

[For students with special education needs] where the pupil is 14 years of age or older, the Individual Education Plan must ... include a plan for transition to appropriate postsecondary school activities, such as work, further education, and community living.

(Ontario Ministry of Education, 2002, p. 5).

Principals are required to ensure that a plan for transition is in place for students with ASD [autism spectrum disorders].

(Ontario Ministry of Education, 2007c)

5. Learning for All through Professional Learning

The approaches outlined in *Learning for All, K–12* are designed to bring about personalization and precision in learning, starting from the premise that (1) teachers need to know their students, and (2) assessment for learning, in conjunction with *professional learning*, is critical to achieving that goal. These approaches provide a road map to assist educators in *reaching every student*.

This chapter focuses on professional learning, which is critically important to any attempt to improve student achievement and close the achievement gap. To be effective, professional learning should be learning “in context” – that is, learning that helps educators develop the particular knowledge and skills they need to provide focused assessment and instruction for the students in their classrooms.

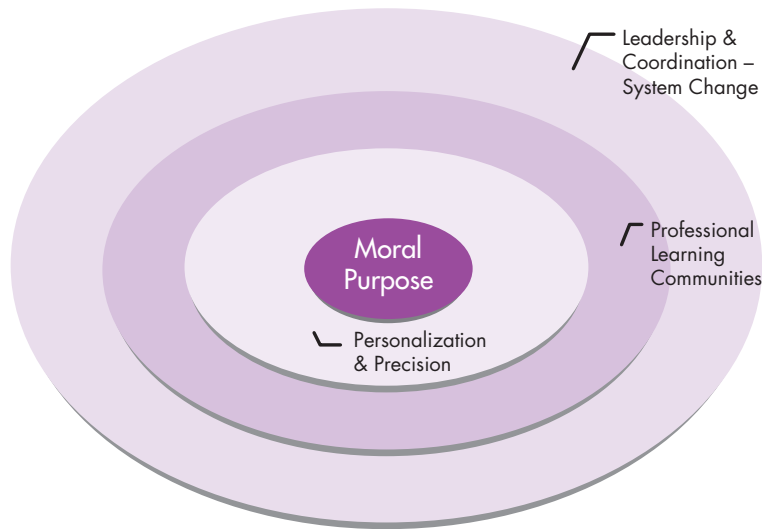
Commitment to professional learning within school and board communities, discussed later in this chapter, develops the collective capacity of staff to work together to achieve the fundamental purpose of the education system – that is, high levels of learning for *all* students. Every student’s learning experience can be improved when there is a shared commitment to high academic goals for every student and when educators are engaged in collaborative problem solving, continuous assessment for learning, and ongoing professional learning that is job-embedded and site-specific.

“The glue that binds these three components [personalisation, precision, and professional learning] is moral purpose: education for all that raises the bar as it closes the gap.”

(adapted from Fullan et al., 2006, pp. 16–26).

If education partners lose sight of the moral purpose of serving all students to a high standard, they run the risk of implementing the three components in ways that may fail to bring about the desired changes in education.

Figure 9. Moral Purpose: Education for all that raises the bar as it closes the gap




BELIEFS FOUNDED ON THE MORAL PURPOSE OF EDUCATION

- All students can achieve high standards given significant time and support.
- All teachers can teach to high standards given the right conditions and assistance.
- High expectations and early intervention are essential.
- Teachers need to be able to articulate what they do and why they do it.

*(Figure adapted from Fullan et al., 2006, p. 91;
Beliefs text from Hill & Crévola, 1999, p. 12)*

The Three Big Ideas Guiding PLCs



Professional learning communities (PLCs) are guided by three big ideas:

- a commitment to ensure learning for all students
- a culture of collaboration
- a focus on results

(Dufour, 2004, pp. 6–11)

A Commitment to Ensure Learning for All Students

When systems and schools function as professional learning communities, all educators work collaboratively in a culture of learning to ensure learning for all students and their own professional learning. They work together to close achievement gaps by designing coordinated strategies to ensure that all students receive appropriate and timely assessment and instruction. A successful professional learning community works systematically, addressing the learning needs of all within the entire school community.

In professional learning communities there is a culture of high expectations that supports the *belief that all students can learn*, and the school responds in a timely fashion to students who require intervention and support. An effective intervention is time limited, and the student subsequently progresses without ongoing extra support.

In professional learning communities, there also is a process and practice in place to guide decision making in implementing timely support and interventions through a team approach. The team responds to individual student learning needs, and monitors, tracks, and analyses student data to improve student achievement. There are also shared and clearly understood learning goals for all students, and students see themselves represented in the curriculum, programs, and culture of their school. Students feel a sense of belonging in their classrooms and in their schools and participate in decisions that have an impact on their educational experience.



School Boards' Approaches to "Learning for All" PLCs

- One board developed a "Know Your Students" module for the PLC, using student video clips to enhance a class profile. In addition, the "Checklist to Guide Classroom Practice Using Principles of Universal Design for Learning", from the draft *Learning for All, K-12* document, was incorporated into the board's "Literacy – Collaborative Continuous Improvement" sessions for elementary and secondary staff.
- An Integrated Arts Initiative at another school board involved professional learning networks that focused on differentiated instruction in the intermediate division and on ways of creating a safe, caring, and inclusive school climate that would benefit all learners. Literacy links and professional development opportunities that clearly demonstrated approaches to teaching the fundamental concepts at each grade level were also provided. The approach was seen to have a direct and positive impact on student learning in all related areas of study.
- In conjunction with its succession planning and mentoring for newly appointed school leaders programs, one board developed "differentiated instruction look-fors" for principals and vice-principals to use during walk-throughs, and provided appropriate training. A video overview of the key concepts associated with Learning for All was also created to support professional learning.
- At one board, the teachers involved in the Learning for All project PLC shared their experiences in determining students' learning preferences and implementing DI and assessment for learning strategies and methods. Each time the PLC met, a different section of a board-wide template for applying Learning for All concepts and approaches was completed. This allowed teachers an opportunity to discuss their understandings and issues, effective practices, and resources.

A Culture of Collaboration

Educators in a professional learning community understand that they learn and work together to achieve their collective purpose of *learning for all*. The powerful collaboration that characterizes professional learning communities is a systematic process in which educators work together with parents and community partners to analyse and continuously improve their classroom and school practices.

In a professional learning community, educators often work in teams, engaging in an ongoing cycle of exploration into ways of focusing assessment and instruction in their classrooms. This approach promotes deep learning among team members and, in turn, leads to higher levels of student achievement. However, the promise of a professional learning community can be realized only if the process is systematic and school-wide. Dedicated teams need to meet regularly throughout the school year. The success of the process ultimately rests on a collective will to pursue collaborative learning, as well as on the ability of the individual to find personal security and confidence in the process of continuous improvement.

Teams focus their efforts on crucial questions related to learning, and produce work that reflects that focus, such as identifying learning goals for curriculum planning needs, sharing different kinds of assessment tools, analysing data on student achievement, and developing and sharing instructional strategies and other approaches for improving results. Teams should also develop norms to clarify roles, responsibilities, and relationships among team members. Teams work towards student achievement goals that are linked to school and system goals.



Professional Learning Across Departments, Boards, and Regions

- One school board's Curriculum Department incorporated the Learning for All class profiles into its "Literacy – Collaborative Professional Development" materials for administrators, literacy teachers, and special education resource teachers (SERTs).
- A Professional Learning Cycle strategy was used by one board in its PLCs. Learning for All concepts and approaches were discussed in the context of current school situations, and information about the initiative was shared with the Special Education Advisory Committee (SEAC), trustees, principals and vice-principals, and the Program Support Team (board consultants at the elementary and secondary levels). The presentation linked Learning for All to key activities held throughout the board during the school year – for example, Assistive Technology Night included a focus on individualized support for students.
- School boards developed a range of resources to support information sharing and professional development, including the following: a DVD highlighting best practices across the region, which was shared with the boards' Special Education Advisory Committees (SEACs); a resource illustrating key concepts and featuring board-developed resources on assistive technology; differentiated instruction "look-fors" for principals

(continued)

and vice-principals, along with walk-through training; and training in the use of interactive whiteboards to promote principles of UDL, which was presented to school and system leaders.

- One school board took an interdepartmental approach to the preparation of a board-wide professional development (PD) day. The board developed an “L4All” game, a “3Ps” placemat, and an “L4All At-A-Glance” placemat, as well as videos and a leadership plan for implementing the PD sessions. There was a focus on building expertise for principals and administrators, using DI coaching and modelling approaches, professional learning within families of schools, and job-embedded learning.
- Some school boards reported that the Learning for All project had an impact on supervision of instruction and interdepartmental collaboration; one board reported that it also played a role in bringing about a culture shift towards a decreased dependence on textbooks in its secondary schools. The project promoted a common understanding and vision across schools in the boards, strengthened staff engagement, and led to a stronger link between curriculum and experiential learning opportunities.

A Focus on Results

Professional learning communities judge their effectiveness on the basis of results. Every educator participates in an ongoing process of identifying current levels of achievement, establishing goals to improve those levels, and working together to achieve those goals. Sustaining an effective professional learning community requires that school staff focus on learning as much as teaching, on working collaboratively to improve learning, and on holding themselves accountable for the kinds of results that fuel continued improvements.

When educators work collaboratively to implement an integrated process of assessment and instruction, student achievement can improve. The success of the professional learning community approach depends on the commitment and persistence of the educators within the school.



A Focus on Results

- One board reported that through discussions in a PLC, teachers devised ways of recording individual student progress and achievement on class profiles, providing individualized “evidence of growth” comments for every student that they were then able to use when preparing final report cards in June.
- In one school board’s PLC, a team of teachers examined diagnostic assessment data, made instructional decisions on the basis of the

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data, investigated a range of strategies and tools, and provided differentiated instruction and assessment for students. Towards the end of a semester, they found that their students' achievement data uniformly revealed improvement.

- In one region, teams developed a list of key indicators for gathering student achievement data for students with special learning needs across the school boards in the region.

Conclusion

Building effective professional learning communities together requires that partners at all levels of the education system create the conditions that provide all students with the best possible opportunities to learn and to maximize their potential. This is a matter of equity and social justice, and it is our collective responsibility.

Leadership is second only to teaching in its impact on student outcomes. School and system instructional leaders play a critical role in supporting an integrated approach to student-centred learning through their commitment to equity and student outcome.¹¹ Supervisory officers, principals, and vice-principals put in place supportive system and school practices and procedures such as professional learning communities. They facilitate forward planning, align resources, and provide the support to build an integrated process of assessment and instruction in their schools.

In addition, lead educators in elementary and secondary schools also play a significant role in this process by working directly with teachers through job-embedded training and coaching and through existing initiatives (e.g., Leading Student Achievement (LSA), Teaching-Learning Critical Pathways, Professional Learning Communities (PLCs), Hubs and Networks, and Growing Accessible Interactive Networked Supports (GAINS)).

All educators and parents hope that our schools will bring out the very best in our students and encourage them to reach their full potential. Much progress has been made, but we have more work to do. The effort to raise the bar and reduce the gap is a shared responsibility. It requires engagement and partnership between parents, the school, and its community to provide learning opportunities for all students.

Raising the bar and closing the gap can occur when school boards, schools, and individual educators focus their planning, instruction, interventions, and responses on the following four key tenets:

- Knowing your students
- Knowing where your students are in their learning

11. Adapted from *Preamble to the Leadership Frameworks for Principals and Vice-Principals and for Supervisory Officers* (Ontario Ministry of Education, 2007).

- Knowing where your students need to go in their learning
- Knowing how to get your students to where they need to go in their learning

When the planning initiatives of the ministry, school boards, schools, and educators are aligned in a concerted and strategic manner, we can build a seamless continuum of student-centred learning and optimize student learning and achievement.

As noted in the introduction, the Ministry of Education has put certain tools in place to promote school board planning aimed at improving learning outcomes for all students, as follows:

- *K–12 School Effectiveness Framework: A Support for School Improvement and Student Success* (Ontario Ministry of Education, 2010), available at www.edu.gov.on.ca/eng/literacynumeracy/Framework_english.pdf
- *Board Improvement Plans for Student Achievement, Kindergarten to Grade 12* (templates distributed annually to Ontario school boards)



Aligning Learning for All with Other Initiatives

- One school board aligned Learning for All with other initiatives through a focus on assessment for learning and differentiated instruction in the board's Teaching-Learning Critical Pathway (TLCP) cycle. Each school participated in three learning cycles, each of which was eight weeks long and had a focus tied to goals in the Board Improvement Plan, the School Improvement Plan, and the School Effectiveness Framework (SEF).
- Some school boards reported that they planned to perform a three-stage needs analysis using Learning for All and the board and school improvement planning process. They would review what the data told them about the students in their classes (using Learning for All tools), the classes in their schools (using SEF), and the schools in their boards (using BIPSA).

Learning for All, K–12 presents approaches and tools that can be used in classrooms, schools, and school boards. These approaches and tools serve as an important starting point in a consistent and integrated process of gathering student information, providing personalization and precision in instruction, and tracking student progress over time. Through the work of professional learning communities, school communities build instructional leadership at the classroom, school, and board level; plan from the strengths and needs of students by engaging students, parents, and communities; and improve practices to help every student reach his or her potential.

Glossary

accommodations: Special teaching and assessment strategies, human supports, and/or individualized equipment required to enable a student to learn and to demonstrate learning. The provincial curriculum expectations for the grade are not altered for a student receiving accommodations.

alternative learning expectations: A type of expectation developed to help students acquire knowledge and skills that are not represented in the Ontario curriculum expectations. Because they are not part of a subject or course outlined in the provincial curriculum documents, alternative expectations are considered to constitute alternative programs or alternative courses (i.e., secondary school courses). Examples of alternative programs/courses include speech remediation, social skills, orientation/mobility training, and personal care programs. Alternative programs/courses are provided in both the elementary and the secondary panels.

assessment: The process of gathering information that accurately reflects how well a student is achieving the curriculum expectations in a subject or course. The primary purpose of assessment is to improve student learning. Assessment for the purpose of improving student learning is seen as both “assessment *for* learning” and “assessment *as* learning”. Evaluation of student learning is based on assessment *of* learning that provides evidence of student achievement at strategic times throughout the grade/course, often at the end of a period of learning.

class profile: An information gathering and planning tool that provides a snapshot of the strengths, needs, interests, and readiness to learn of each of the students in a class, as well as strategies, accommodations, and resources to use with each student. A class profile is both a reference tool for planning assessment and instruction and a tracking tool for monitoring changes throughout the year. *See also* **student profile**.

differentiated instruction (DI): A method of teaching that attempts to adapt instruction to suit the differing interests, learning styles, and readiness to learn of individual students.

equity: A condition or state of fair, inclusive, and respectful treatment of all people. Equity does not mean treating people the same without regard for individual differences.

Individual Education Plan (IEP): A written plan describing the special education program and/or services required by a particular student, including a record of the particular accommodations needed to help the student achieve his or her learning expectations. An IEP must be developed for a student who has been identified as exceptional by an Identification, Placement, and Review Committee (IPRC), and may also be developed for a student who has special education needs but has not been identified as exceptional. An IEP is a working

document that identifies learning expectations that may be modified from or alternative to the expectations given in the curriculum policy document for the appropriate grade and subject or course. It outlines the specific knowledge and skills to be assessed and evaluated for the purpose of reporting student achievement.

individual student profile: *See student profile.*

in-school support team: A school-based team that suggests teaching strategies to classroom teachers who have students with special education needs and that recommends formal and informal assessments. An in-school support team is made up of people with various types of expertise who work together. In most schools, the core members of the team would include the principal or vice-principal; the school special education resource teacher (if available); a guidance teacher-counsellor (especially at the secondary level); and possibly the student's current teacher and/or the "referring" teacher (adapted from Ontario Ministry of Education, 2001, pp. C6–C7). When appropriate, the team may also include representatives from the school board and/or the community. An in-school support team may also be referred to as a *multidisciplinary team*.

learning style: The method that an individual prefers to use when receiving, processing, and remembering new information. Learning styles are often described according to the senses – visual, auditory, or kinesthetic. While some individuals favour one style, others prefer to use different styles for different tasks, or a combination of styles.

modifications (modified expectations): Changes made to the grade-level expectations for a subject or course in order to meet a student's learning needs. Modifications may include the use of expectations at a different grade level and/or an increase or decrease in the number and/or complexity of expectations relative to the curriculum expectations for the regular grade level.

personalization: Education that puts the learner at the centre, providing assessment and instruction that are tailored to students' particular learning and motivational needs (adapted from Fullan, Hill, & Crévola, 2006).

precision: A term describing instruction that is closely informed by evidence from assessment for learning and that responds to the learning strengths and needs and level of readiness of the individual student.

professional learning: Focused, ongoing learning for every educator "in context", to link new conceptions of instructional practice with assessment of student learning (adapted from Fullan, Hill, & Crévola, 2006).

student profile: An information gathering and planning tool used to compile detailed information on an individual student's strengths and needs and the methods of assessment and instruction that best suit the student's strengths, learning style, preferences, needs, interests, and readiness. *See also class profile.*

the tiered approach: A systematic, sequential instructional approach that uses specific instructional interventions of increasing intensity to address students' needs. It can be used to address either the academic or the behavioural needs of students who are having difficulty.

Universal Design for Learning (UDL): A teaching approach that focuses on using teaching strategies or pedagogical materials designed to meet special needs to enhance learning for *all* students, regardless of age, skills, or situation.

Appendix A: Class Profile Template

Teacher: _____ Date Started: _____

Grade/Course: _____

Student	Learning profile*	Strengths/Areas of need (achievement/readiness, interests, learning needs, social/emotional strengths and needs)	Instructional strategies and resources; assessment tools; accommodations	Evidence of improvement in learning	Adjustments in instruction/Other interventions, if needed	Available supports and resources	Other relevant information

* The learning profile may include learning style, type of intelligence(s) ("learning preference"), as well as preferences or traits related to socioeconomic or cultural background.
Learning styles: **A** – Auditory; **V** – Visual; **K** – Kinesthetic; **T** – Tactile
Learning preferences: **VL** – Verbal Linguistic; **LM** – Logical Mathematical; **VS** – Visual Spatial; **BK** – Bodily Kinesthetic; **MR** – Musical Rhythmic; **N** – Naturalist; **I** – Interpersonal; **In** – Intrapersonal

Appendix B: Student Profile Template

STUDENT PROFILE		
Name: _____		Age: _____
Grade: _____		
School: _____		
Number of Credits Accumulated: _____		Date: _____
<p>Sources of Information</p> <p><i>(Identify sources of information and assessments to be conducted. Check box and note date when a source has been reviewed or a new assessment completed.)</i></p>		
Review of OSR, including previous report cards _____ Consultation with parents _____ Consultation with previous and current teachers _____ Consultation with support team _____ Classroom observation checklist _____ Educational assessments (e.g., pretests related to particular curriculum expectations) _____	Interest and/or learning style inventory _____ Work samples, assignments, projects _____ Portfolios _____ Teacher-student conferences _____ Peer and self assessments _____ Other (specify) _____	
Findings from Information Sources and Assessments – Strengths and Areas of Need		
Current achievement levels, learning skills/work habits and readiness to learn	Learning styles/preferences and needs, interests, social/emotional strengths and needs	Other relevant information
Assessment and Instruction		
Considerations for Instructional Strategies	Considerations for Assessments	Available Resources and Supports

Appendix C: Questions to Guide System and School Implementation of an Integrated Process of Assessment and Instruction

The following questions can help to promote professional discussions and guide system and school leaders in implementing approaches and tools described in *Learning for All, K–12* at the system and school levels.

Knowing Your Students
<p>At the system and school levels:</p> <ul style="list-style-type: none"> • What approaches and tools do we currently have in place to ensure that the learner is at the centre – that we “know our students”? • What processes do we have in place to ensure that assessment and instruction are tailored to each student’s particular learning style, preferences, interests, and readiness? • What additional approaches and/or tools and processes can we put in place to ensure that the learner is at the centre? • What measures of accountability do we currently have in place and/or need to put in place to ensure that our practices are making a difference in student learning?
Assessment for Learning
<p>At the system and school levels:</p> <ul style="list-style-type: none"> • How do our current assessment practices inform instruction to support student learning? • How do we effectively use assessment for learning to adjust instruction and revise learning goals? • What resources do we need to provide in order to support the professional learning and practices of assessment for learning?
Personalization and Precision of Instruction
<p>At the system and school levels:</p> <ul style="list-style-type: none"> • What assessment and instructional approaches have we effectively used to “raise the bar and close the achievement gap” for all of our students? • In what ways and to what extent do our current instructional practices incorporate principles of Universal Design for Learning, differentiated instruction, and the tiered approach? • What further steps can we take, and what additional supports do we need to build a deeper understanding of these approaches and to ensure that they are implemented?

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Professional Learning
<p>At the system and school levels:</p> <ul style="list-style-type: none">• How can we deepen our understanding of professional learning communities (PLCs) and increase our capacity for building them, with the aim of improving student achievement?• How can we change classroom, school, and system practice to build a culture of learning that focuses on success for all students?• How can we collectively develop “SMART” (Specific, Measurable, Achievable, Results-oriented, and Time-bound) goals through the work of professional learning communities (PLCs)?

References

- Almasi, J. F. (2003). *Teaching strategic processes in reading*. New York: Guilford Press.
- Black, P., & Wiliam, D. (1998). Inside the black box: Raising standards through classroom assessment. *Phi Delta Kappan*, 80(2), 139–148.
- Campbell, C., Comper, J., & Winton, S. (2007). Successful and sustainable practices for raising student achievement in literacy and numeracy. *Changing Perspectives* (published by the Ontario Association for Supervision and Curriculum Development (ASCD)), 31–36.
- Center for Applied Special Technology (CAST). (2011a). *UDL guidelines – Educator checklist version 2*. Wakefield, MA: Author. Retrieved August 22, 2011, from www.udlcenter.org/sites/udlcenter.org/files/Guidelines_2.0_Educator_Checklist.doc.
- Center for Applied Special Technology (CAST). (2011b). *Universal Design for Learning guidelines version 2.0*. Wakefield, MA: Author. Retrieved August 22, 2011, from www.udlcenter.org/sites/udlcenter.org/files/Guidelines_JAN2011.pdf.
- Conzemius, A., & O’Neill, J. (2002). *The handbook for SMART school teams*. Bloomington, IN: Solution Tree.
- Dufour, R. (2002). The learning-centred principal. *Educational Leadership*, 59(8), 12–15.
- Dufour, R. (2004). What is a professional learning community? *Educational Leadership*, 61(8), 6–11.
- Dufour, R., Dufour, R., & Eaker, R. (Eds.). (2003). *On common ground: The power of professional learning communities*. Bloomington, IN: Solution Tree.
- Dufour, R., & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement*. Bloomington, IN: Solution Tree.
- Expert Panel on Literacy and Numeracy Instruction for Students With Special Education Needs, Kindergarten to Grade 6. (2005). *Education for all: The report of the Expert Panel on Literacy and Numeracy Instruction for Students With Special Education Needs, Kindergarten to Grade 6*. Toronto: Ontario Ministry of Education.
- Fullan, M. (2007). *The new meaning of educational change* (4th ed.). New York: Educators’ College Press.
- Fullan, M., Hill, P., & Crévola, C. (2006). *Breakthrough*. Thousand Oaks, CA: Corwin Press.
- Gardner, H. (1993). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Gardner, H. (1999). *Intelligence reframed: Multiple intelligences for the 21st century*. New York: Basic Books.
- Gaskins, I. (1998). There is more to teaching at-risk readers and delayed readers than good reading instruction. *The Reading Teacher*, 51, 534–547.

- Hall, T., Strangman, N., & Meyer, A. (2003). *Differentiated instruction and implications for UDL implementation*. Wakefield, MA: National Center on Accessing the General Curriculum. Retrieved September 22, 2011, from http://aim.cast.org/learn/historyarchive/backgroundpapers/differentiated_instruction_udl.
- Hill, P. W., & Crévola, C. A. (1999). The role of standards in educational reform for the 21st century. In D. D. Marsh (Ed.), *ASCD Yearbook 1999: Preparing our schools for the 21st century* (pp. 117–142). Alexandria, VA: Association for Supervision and Curriculum Development.
- Hitchcock, C., Meyer, A., Rose, D., & Jackson, R. (2002). *Technical brief: Access, participation, and progress in the general curriculum*. Wakefield, MA: National Center on Accessing the General Curriculum. Retrieved September 7, 2011, from http://aim.cast.org/learn/historyarchive/backgroundpapers/tech_brief.
- Kamil, M. L., Mosenthal, P. B., Pearson, D. P., & Barr, R. (2000). *Handbook of reading research* (Vol. 3). Mahwah, NJ: Lawrence Erlbaum.
- Kober, N. (2001). *It takes more than testing: Closing the achievement gap*. Washington, DC: Center on Education Policy. Retrieved September 7, 2011, from ERIC database: www.eric.ed.gov/PDFS/ED454358.pdf.
- Mortimore, P., & Whitty, G. (1997). *Can school improvement overcome the effects of disadvantage?* London, UK: Institute of Education.
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: US Government Printing Office.
- Ontario. Ministry of Education. (2001). *Special education: A guide for educators*. Toronto: Author. Available at www.edu.gov.on.ca/eng/general/elemsec/speced/guide/specedhandbooke.pdf.
- Ontario. Ministry of Education. (2002). *Transition planning: A resource guide*. Toronto: Author. Available at www.edu.gov.on.ca/eng/general/elemsec/speced/transiti/transition.pdf.
- Ontario. Ministry of Education. (2004a). *The Individual Education Plan (IEP): A resource guide*. Toronto: Author. Available at www.edu.gov.on.ca/eng/general/elemsec/speced/guide/resource/iepresguid.pdf.
- Ontario. Ministry of Education. (2004b). *TIPS (Targeted Implementation and Planning Supports): Developing mathematical literacy*. Toronto: Author.
- Ontario. Ministry of Education. (2007a). *Differentiated instruction teacher's guide: Getting to the core of teaching and learning*. Toronto: Author. Available from www.edugains.ca/newsite/di2/edupackages/2007educatorspackage.html.
- Ontario. Ministry of Education. (2007b). *Ontario First Nation, Métis, and Inuit Education Policy Framework*. Toronto: Author. Available at www.edu.gov.on.ca/eng/aboriginal/fnmiFramework.pdf.
- Ontario. Ministry of Education. (2007c). Policy/Program Memorandum No. 140: Incorporating methods of applied behaviour analysis (ABA) into programs for students with autism spectrum disorders (ASD). Toronto: Author. Available at www.edu.gov.on.ca/extra/eng/ppm/140.html.
- Ontario. Ministry of Education. (2007d). *Preamble to the leadership frameworks for principals and vice-principals and for supervisory officers*. Toronto: Author. Available at www.edu.gov.on.ca/eng/policyfunding/leadership/PVPLeadershipFramework.pdf.
- Ontario. Ministry of Education. (2008). *Reach every student: Energizing Ontario education*. Toronto: Author. Available at www.edu.gov.on.ca/eng/document/energize/energize.pdf.

- Ontario. Ministry of Education. (2009). *Reach every student through differentiated instruction, Grades 7 and 8*. Toronto: Author. Available at www.edugains.ca/resources/DI/Brochures/7&8DIBrochureRevised09.pdf.
- Ontario. Ministry of Education. (2010a). *Growing success: Assessment, evaluation, and reporting in Ontario schools. First edition, covering Grades 1 to 12*. Toronto: Author. Available at www.edu.gov.on.ca/eng/policyfunding/growSuccess.pdf.
- Ontario. Ministry of Education. (2010b). *School Effectiveness Framework: A support for school improvement and student success*. Toronto: Author. Available at www.edu.gov.on.ca/eng/literacynumeracy/Framework_english.pdf.
- Pressley, M., Wharton-McDonald, R., Mistretta-Hampston, J., & Echevarria, M. (1998). The nature of literacy instruction in ten Grade 4/5 classrooms in upstate New York. *Scientific Studies of Reading*, 2, 159–194.
- Pressley, M., & Woloshyn, V. E. (1995). *Cognitive strategy instruction that really improves children's academic performance* (2nd ed.). Cambridge, MA: Brookline Books.
- Pressley, M., Yokoi, L., & Rankin, J. (1996). A survey of instructional practices of primary teachers nominated as effective in promoting literacy. *Elementary School Journal*, 96, 333–384.
- Raynal, F., & Rieunier, A. (1998). *Pédagogie : dictionnaire des concepts clés : Apprentissage, formation, psychologie cognitive*. Paris: Édition Sociale Française (ESF).
- Reeves, D. (2002). *The leader's guide to standards: A blueprint for educational equity and excellence*. San Francisco: Jossey-Bass.
- Rose, D. H., & Meyer, A. (2002). *Teaching every student in the digital age: Universal Design for Learning*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Schmoker, M. (2004). Tipping point: From feckless reform to substantive instructional improvement. *Phi Delta Kappan*, 85(6), 424–432.
- Stiggins, R. J. (2002). Assessment crisis: The absence of assessment FOR learning. *Phi Delta Kappan*, 86(10), 758–765.
- Stiggins, R. J. (2004). *Assessment FOR learning: Building a culture of confident learners*. Portland, OR: Assessment Training Institute.
- Stiggins, R. J., Arter, J., Chappuis, J., & Chappuis, S. (2005). *Classroom assessment for student learning: Doing it right – using it well*. Portland, OR: Assessment Training Institute.
- Stigler, J., & Hiebert, J. (1999). *The teaching gap*. New York: Free Press.
- Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change*, 7, 221–258.
- Stoll, L., & Louis, K. S. (2006). *Professional learning communities: Divergence, depth and dilemmas*. Maidenhead, UK: Open University Press.
- Strangman, N., Hitchcock, C., Hall, T., Meo, G., et al. (2006). *Response-to-Instruction and Universal Design for Learning: How might they intersect in the general education classroom?* Washington, DC: The Access Center. Retrieved August 24, 2011, from www.k8accesscenter.org/documents/RTIandUDLFinal2.pdf.

- Subban, P. (2006). Differentiated instruction: A research basis. *International Education Journal*, 7(7), 935–947.
- Theroux, P. (2004). *Strategies for differentiating*. Retrieved August 24, 2011, from www.members.shaw.ca/priscillatheroux/differentiating_article.html.
- Tomlinson, C. (2004). *La classe différenciée*. Montreal: Chenelière/McGraw-Hill.
- Tomlinson, C., & Eidson, C. (2003). *Differentiation in practice: A resource guide for differentiating curriculum, Grades K–5*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Turnbull, R., Turnbull, A., Shank, M., Smith, S., & Leal, D. (2002). *Exceptional lives: Special education in today's schools* (3rd ed.). Columbus, OH: Merrill/Prentice-Hall.
- Vaughn, S., Linan-Thompson, S., & Hickman, P. (2003). Response to instruction as a means of identifying students with reading/learning disabilities. *Exceptional Children*, 69, 391–409.
- Vygotsky, L. (1980). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Western and Northern Canadian Protocol for Collaboration in Education. (2006). *Rethinking classroom assessment with purpose in mind: Assessment for learning, assessment as learning, assessment of learning*. Retrieved August 24, 2011, from www.wncp.ca/media/40539/rethink.pdf.
- Wiggins, G. (1998). *Educative assessment: Designing assessments to inform and improve student performance*. San Francisco, CA: Jossey-Bass.
- Wiggins, G., & McTighe J. (2005). *Understanding by design* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- Willms, J. D. (2006). *Learning divides: Ten policy questions about the performance and equity of schools and schooling systems*. Montreal: UNESCO Institute for Statistics.
- Woloshyn, V. E., Elliott, A., & Kauchos, S. (2001). So what exactly is explicit strategy instruction? A review of eight critical teaching steps. *The Reading Professor*, 24(1), 66–114.

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