“It is very clear that yesterday’s schools are ill suited for meeting the challenges young adolescents face today.” P. 7

“Each young adolescent is a living work in progress with growth along the road to maturity occurring at different times and rates. As a result, designing middle grades programs on the assumption that every student is ready to master specific concepts or content at precisely the same time is unrealistic and counterproductive.” P. 11

### Essential Attributes and Characteristics

1. **Educators value young adolescents and are prepared to teach them.** *(Value Young Adolescents)*

   **Educators**
   - choose to work with and advocate for young adolescents
   - have taken specific middle school training prior to teaching this level and engage in continuous professional development
   - understand the developmental uniqueness of their students, appropriate curriculum, effective learning and assessment strategies
   - demonstrate empathy
   - engage students in significant learning experiences
   - value interdisciplinary studies and integrated learning
   - make sound pedagogical, research-based decisions reflecting the needs, interests, and special abilities of students
   - are sensitive to individual differences and varied learning styles
   - respond positively to the diversity students present
   - are effective in involving families in the education of their children
   - are role models – practice those qualities of heart and mind that they want young adolescents to emulate; model inclusive, democratic, team-oriented approaches to teaching and learning...

2. **Students and teachers are engaged in active, purposeful learning** *(Active Learning)*

   **Successful middle grades schools are characterized by**
   - the active engagement of students and teachers
   - the use of strategies that involve each child personally
   - students who are purposefully empowered to assume a role in their education, given opportunities to express their needs and preferences; and educators who open new pathways to facilitate differentiated instruction and authentic assessment
   - “hands on” learning as well as “hands-joined” learning – teachers and students working together to develop learning / assessment experiences;
students routinely assume the role of teacher, and teachers demonstrate that they are still learners – a genuine learning community

3. Curriculum is challenging, exploratory, integrative and relevant (Challenging Curriculum)

Developmentally responsive schools understand that
- covering the content and learning the content are not synonymous
- having academic standards neither implies nor demands a uniform, prescribed curriculum
- curriculum encompasses not only the basic classes to advance skills and knowledge, but also school-wide services and programs
- the “hidden curriculum” has a powerful influence - interactions, structures, issues, opportunities, personalized challenges, probing questions...; interweaving of the planned and unplanned curriculum

“In some exemplary middle level schools, curriculum is often carried out in units or projects that involve complex tasks and focus on major issues. Units are organized around a theme or integrated by a melding of teachers' goals and students' questions rather than through separate subjects.” P. 17

Challenging curriculum
- actively engages learners
- addresses substantive issues and skills
- is geared to levels of understanding of the learners
- enables learners to assume control
- presents tasks that must be perceived as achievable even if difficult
- skills and concepts are mastered in context

Educators
- in consultation with students, guide the selection of ideas for in-depth study from vast range of information and materials that are genuinely important and worth knowing
- help students examine values, assumptions, basic principles, alternate points of view – help them become explorers, thinkers, and skilled writers
- teach skills and concepts in context
- take into account varied learning styles, different rates of development, prior experiences, cultural background... to adapt curriculum; both content and methods are diversified e.g. by offering choices, “providing challenges for every student to reach and grow according to each individual’s abilities and readiness,” independent study, small group work, special interest enrichment, apprenticeship...
- provide opportunities for students to contribute to and take ownership of their own education – e.g. make choices and decisions re: curricular goals, content, activities, and means of assessment; initiative, responsibility, leadership... are fostered in classrooms and school
Exploratory Learning

“...young adolescents, by nature are adventuresome, curious explorers. Therefore, the general approach for the entire curriculum at this level should be exploratory. Exploration, in fact, is the aspect of a successful middle school curriculum that most directly and fully reflects the nature and needs of the majority of young adolescents, most of whom are ready for an exploratory process. Although some experiences or courses may be labeled exploratory, it should not be assumed they are, therefore, nonacademic. The reverse is equally true; a solid academic experience properly designed is exploratory. Exploration is an attitude and approach, not a classification of content.” P. 20

Students deserve opportunities to ascertain their special interests and aptitudes, engage in activities that broaden their view of the world and themselves... for potential leisure or career paths, to enrich life

Integrative curriculum
• maximizes learning
• connects to applications in the daily lives of learners; helps students make sense of their lives and the world around them
• revolves around important questions students ask rather than around a predetermined body of content - where knowledge and skills deemed important by adult community and expressed in academic standards... are applied to student concerns
• enhances critical thinking, decision making, creativity... when students get to examine problems they have identified and take steps to solve them – constructing vs. consuming knowledge

Relevant curriculum
• allows students to
  o pursue answers to questions they have about themselves, the content, and the world... supported by teachers who help them see connections;
  o study concepts and learn skills in areas that interest them as well as those determined by adults
• is developed with reference to student’s questions, ideas and concerns
• creates new interests, opens new doors to knowledge, stretches to higher levels of learning – not limited by students’ preexisting interests

4. Educators use multiple learning and teaching approaches (Multiple Learning Approaches)
• teaching approaches should capitalize on prior knowledge, skills and abilities of students; multiple intelligences; learning styles of students; cultural,
experiential and personal backgrounds; students’ special talents or interests (intellectual, athletic or artistic) recognition of need for regular movement

- students should acquire various ways of posing and answering questions, engage in learning experiences wherein basic skills are mastered in functional contexts
- adolescents learn best through engagement and interaction; varied approaches e.g. experiments, demonstrations, surveys and opinion polls, simulations, inquiry-based and group projects, community-based services, independent study...
- individual differences accommodated via abundant opportunities for choice
- collaboration between teachers to design learning activities that ensure appropriate challenges for all students; varying forms of group work to increase student engagement and achievement e.g. students clustered for short times randomly, by ability, interest, other criteria
- school personnel involve families in determining best educational program...
- instructional materials and resources – provide multiple viewpoints, insights, encourage exploration – print, non-print, community, internet - beyond school and community

5. Varied and ongoing assessments advance learning as well as measure it. (Varied Assessments)

- continuous, authentic, appropriate assessments – helps students, teachers, family select immediate goals and plan further education
- includes process and product
- students should set goals, chart growth, reflect on progress re: knowledge, skills, behavior
- “Grades alone are inadequate for reporting student progress, particularly using grades in the formative assessment phase, when they inhibit students’ learning.” P. 25
- both formative and summative assessments should provide opportunities for students to demonstrate their learning in a variety of ways
- teachers should specify in advance the criteria for assessment, usually in the form of a rubric... and examples of the quality of work should be available; students should be involved in designing these rubrics
- in addition to content knowledge and skills, students’ growth must also address e.g. critical thinking, independence, responsibility, and other desired attributes – requires a variety of assessment strategies including journals, electronic portfolios, demonstrations, descriptive teacher feedback, peer feedback, teacher-designed tests, audio and video evidence
- assessment should emphasize individual progress rather than comparison with other students, should not rely on extrinsic motivation... the goal is to help students discover own strengths, weaknesses, interests, aptitudes
• educators should recognize student effort, knowing that not all students can reach a uniform standard at the same time
• communication: help families see how a student’s performance corresponds to curricular expectations, via e.g. student-led conferences, reports written by teachers and students, phone calls, e-mails, presentations / products by students...

6. A shared vision developed by all stakeholders guides every decision. (Shared Vision)

7. Leaders are committed to and knowledgeable about this age group, educational research, and best practices. (Committed Leaders)
   “All those who serve as school leaders – whether administrators, teachers, or other staff members – must possess a deep understanding of the young adolescents with whom they work...” p. 28

8. Leaders demonstrate courage and collaboration. (Courageous and Collaborative Leaders)
   “As architects for change, effective leaders know that yesterday does not have to determine tomorrow. Courageous, collaborative leaders make a difference by putting their knowledge and beliefs into action. Their understanding and commitment to the successful education of every young adolescent help them challenge and change practices that do not serve students’ best interests and confront those issues or situations that are out of alignment with the school’s vision. Successful principals use the expertise of a variety of people to ensure the academic growth and well-being of every student. Working together as a leadership team, the principal is responsible for building a culture of collaboration that values the input from all members of the school community, cultivates leadership skills in others, and empowers them to make decisions and enact changes.... Leaders inevitably serve as the ultimate role models.” P. 29-30

9. Ongoing professional development reflects best educational practices. (Professional Development)
   “…requires a school leader who facilitates and models learning, listens thoughtfully, and builds school culture that supports faculty as they engage in reflective practice. Such a program is cognizant of the needs of adult learners, recognizing that like students, they have different learning styles and are at different places on the learning continuum....” P. 30

10. Organizational structures foster purposeful learning and meaningful relationships (Organizational Structures)
interdisciplinary team of two or more teachers working with a common group of students in a block of time is the signature component of high-performing schools (teams of 2 or 3 most effective)

not just an organizational structure – teaming of students and teachers who become well-acquainted, feel safe, respected and supported, and encouraged to take intellectual risks

“Research indicates that effective interdisciplinary teams lead to improved student achievement, increased parental contacts, an enhanced school climate, and positive student attitudes.”

Daily or regular common planning time essential to plan ways to integrate curriculum, analyze assessment data, examine student work, discuss current research, reflect on effectiveness of instructional approaches

A schedule with large blocks of class time enables e.g. field trips, debates, mock trials, community based service activities, science experiments... also time for some to receive remedial or enrichment support

Larger schools – create “houses” or “schools-within- a- school”

“Research indicates the many limiting and negative effects of academic tracking – decrease in student motivation and self-esteem, unequal learning opportunities, and declines in overall quality of education. In its place, successful middle grades schools use cooperative learning groups, independent study, enrichment programs, and other practices to respond to the variety of student competencies, interests, and abilities...” p. 33

11. The school environment is inviting, safe, inclusive, and supportive of all. (School Environment)

- a joyful community that promotes in-depth learning and enhances physical and emotional well-being
- hear: staff members cordial to each other, teachers and administrators call students by name, students interact comfortably and respectfully with adults and peers; statements of encouragement and positive feedback outnumber disciplinary or correctional comments; interactions reflect fairness and mutual respect; teachers and students learn and practice direct feedback, mediation, healthy and appropriate confrontation, problem solving, positive risk-taking, personal and collaborative goal setting
- everyone works proactively to eliminate harassment, verbal abuse, bullying, name calling
- structures developed to ensure that individuals feel cared for and valued
- effective transition teams with elementary schools; ongoing, multiple opportunities for students and their families to become familiar and involved over time

12. Every student’s academic and personal development is guided by an adult advocate. (Adult Advocate)
“Advocacy is not a singular event or period in the schedule, it is an attitude of caring that translates into actions, big and small, when adults respond to the needs of each young adolescent in their change.” P. 35

- each student has one trusted adult in the school; meet and know each other well – in a position to recognize behavioral changes to take to the attention of a counselor, teachers, administrator, families; protection from bullying
- liaison with families
- scheduling times with advisors, extended homerooms, team-based mentorship...; connecting student with volunteers e.g. tutors, retired teachers, academic and athletic coaches, business partners, ...

13. Comprehensive guidance and support services meet the needs of young adolescents. (Guidance Services)
- counselors, special needs teachers, speech therapists, school psychologists, social workers, school nurse, community liaisons... help students deal with learning difficulties, social adjustments, family issues, health problems

14. Health and wellness are supported in curricula, school-wide programs, and related policies. (Health and Wellness)
- emphasis on health, wellness, and safety permeates the school
- risks associated with tobacco, alcohol, drugs, unhealthy eating habits, and sexual activities are addressed
- benefits of healthy lifestyles are supported through curriculum (including P.E. – lifelong activities) and school environment
- focus on physical and physiological safety

15. The school actively involves families in the education of their children. (Family Involvement)
- “Research studies clearly link the involvement of both family and other adults in the community with higher levels of student achievement, improved behavior, and greater overall support for schools.” P. 40
- create family friendly environment, finding ways for parents to be involved... sponsor parent education programs, create links between home and school, initiate volunteer programs, involve parents in decision making...
- also, continue newsletters, phone calls, report cards, student-parent-teacher conferences, homework hotlines...
- expect family involvement, encourage engagement in their children's learning...

16. The school includes community and business partners. (Community & Business)
source of materials and guest experts; assistance with apprenticeships, service-learning projects, after school programs...

“Students, particularly those in secondary schools, report they are not engaged intellectually in their learning, do not find their required learning relevant and, in many cases, are simply jumping through the hoops of schooling.” P. 4

“Despite consensus on the need for high levels of learning for all citizens and innovative thinking in knowledge-based systems, many schools in many countries still operate as they did at the beginning of the last century. This has to change.” P. 4 – 5

“...a quality learning environment
- makes learning central, encourages engagement, and develops self-regulated learners;
- involves learning that is social and often collaborative;
- is highly attuned to learners’ motivations and the key role of emotions;
- is acutely sensitive to the individual differences among the learners, including their prior knowledge;
- is demanding for each learner but without excessive overload;
- promotes horizontal connectedness across activities and subjects, with the community, and both in and out of school.

P. 5 based on research informing The Nature of Learning

“Our collective challenge is to create the conditions in our schools where educators are open both to challenging long-held practices and to developing new and innovative approaches.” P. 5

“When people... change to a growth mindset, they change from a judge-and-be-judged framework to a learn-and-help-learn framework. Their commitment is to growth and growth that takes plenty of time, effort, and mutual support.”

Carol Dweck, 2006

Copy table of shifting systems p. 6

“Leadership in schools is about making a difference in the lives of every learner. Intense moral purpose is connected with passionate and persistent intensity... The moral purpose mindset asks schools to explore what the notions of quality and equity mean, and to consider the implications of developing new forms of quality.”

P. 6
“Passion is not a luxury, a frill or a quality possessed by just a few principals. It is essential to sustaining successful leadership.”
Christopher Day and Ken Leithwood, 2007

“The longitudinal study of Trust in Schools (Bryk and Schneider, 2002), provides evidence that schools with low levels of relational trust have only a one-in-seven chance of demonstrating improved academic learning.” P. 7

“An inquiry stance is far different from a solution stance. It requires that one ask questions of one’s practice rather than look for answers. It places contextual data collection and analysis rather than generalized solutions at the center of improvement efforts.” Lieberman and Miller, 2004

“...leaders must be deeply grounded in learning theory, have a good understanding of a range of learning models, and need to have confidence in leading what Vivianne Robinson (2009) describes as ‘open to learning conversations’. Leaders must know how to serve as ‘intellectual companions’ to educators at varying stages of their careers and at various developmental levels.” P. 7

“An evidence-informed mindset requires understanding the role of formative assessment practices, engagement and meta-cognition in learning.” P. 7-8

“One of the key responsibilities of school leaders is to create and sustain opportunities for adult learning that lead to improved learning for young people... The research and practice evidence about distributed leadership, teacher professional learning, and learning communities of practice must inform the ways in which leaders design adult learning.” P. 8

“Not only do leaders with the mindset that we describe move naturally and effectively to a more distributed form of leadership, they also connect with other leaders through networks of inquiry and critical friendships... The challenges are simply too great for any one teacher, school or even district to go it alone.” P. 8

“The idea of ‘every learner crossing the stage with dignity, purpose and options’ has emerged as a compelling vision for network educators in B.C. As we sustain the original network focus of using formative assessment and a set of provincially developed learning progressions to help all learners coach themselves to deeper levels of learning, network schools are also inquiring into ways to increase learner engagement, social-emotional connections, self-regulation, critical thinking, healthy living and indigenous knowledge and respect.” P. 8

“Masters papers, action research projects, and individual school change projects often start with a questions. Unfortunately, these questions are not always connected to student learning needs. They may be interesting, engaging, and even a lot of fun for the adults involved – they just do not necessarily lead to substantive changes for learners.
We argue that powerful, disciplined questions must be linked to identified student learning needs; they must drive professional learning; they must lead to real changes in learning and teaching; and, they must be assessed.” P. 9

Photocopy table 2 (links between the principles of innovative learning and the formative assessment strategies) and figure 2 (spiral of learning) – p. 9

“The closer the evidence is to the classroom and to individual learners, the greater the validity of the evidence is for teachers.” P. 10

“Deciding what to pay attention to, determining meaningful patterns of evidence, and participating in thoughtful, trusting and probing discussions are all challenging tasks and are a required first stage of the inquiry spiral... focusing on a mutually-agreed-upon question is more motivating for educators than trying to meet a goal. Sometimes goal setting can limit creativity... Inquiry is different because the focus is on generating new knowledge as well as new practices...” p. 10

“Inquiry learning communities where there is an absence of a clear focus on learning gains and working without specific criteria for success will lack credibility and any progress will not be sustained.” P. 11

“School inquiries should be informed by current evidence about what makes a difference to student learning.” P. 11

“The use of strong classroom-based (assessment) tools removes the reliance on external assessments, which often do not provide the kind of coaching ‘next step’ information that helps learners take more control of their own learning.” P. 11

“In schools where there are regular times early in the day for teacher collaboration, the process of examining strengths and weaknesses in the new approach is much easier... Action and conversation are key... dialogue is vital.” P. 12

“Growth in the adult learning process needs to be acknowledged and celebrated. When both adults and young people are engaged in improving their learning, the school has genuinely become a centre of inquiry.” P. 13
“Consider... this definition of student engagement:
“The extent to which students identify with and value schooling outcomes, have a sense of belonging at school, participate in academic and non-academic activities, strive to meet the formal requirements of schooling, and make a serious investment in learning.” (Willms, Friesen, & Milton, 2009, p.7)

Each descriptor in this definition describes and interaction between a student and a person, structure, or activity. When we speak of student engagement, we are always talking about *relationship* to someone or something....

Although the terms and descriptions vary, researchers are in general agreement that there are three dimensions to engagement:

- school (behavioural/ processes/academic)
- heart (emotional/ belonging/ connection/ social)
- mind (intellectual/ cognitive)”

“Many teachers feel that there is little point talking about a school’s purpose because they see their individual purpose as getting through the mandated curriculum. But to map is not the territory. Curriculum documents are typically lists of content objectives, means to the end of achieving educational purposes, not the purposes themselves....

Inevitably, there are significant differences between the curriculum as it appears on the page and the curriculum we teach. Even if we intend to address every curriculum objective, we give more emphasis to some than others. The objectives we emphasize and the manner in which we teach those objectives reveal the educational purposes we value.” P. 19

Considerations for a staff:

1. What are the conditions under which you learn best? How does the way we organize our school resemble those learning conditions?
2. How do you know when you really know something? Does the way we assess students in our school tell us whether or not our kids have really learned something?
3. What are the most important things we could teach our kids? Is the school organized in such a way as to show students that we value these things?
4. If you were a student here, what would you really like about our school? What things would make it hard for you to learn? What would make you unhappy here?”

(adapted from Wood, 2005, pp. 152-153)
Competence

“...there’s a problem when attention is devoted exclusively to what can be seen. The observable behaviours by which we judge an individual's competence are just the tip of the iceberg. Underneath these behaviours like all kinds of things – attitudes, beliefs, experiences, interests, learning preferences, knowledge, skills. These are often unseen and difficult to measure; they can also be even harder to influence.” P.31

“Leadership expert Lee Colan defines the best managers as those who engage both the hearts and minds, or passion and performance, of employees. This information is also critical for district and school leaders. Teachers who are passionate about working with students but who lack instructional skills will struggle with effective teaching. Teachers who are skilled in instruction but not passionate about their work may find it difficult to come up with a creative solution to an instructional challenge or to make an extra effort when needed.” P. 33

“When I'm working with a disengaged student, I try to remember two things: (1) They've been on the planet a short while, and they need time and help to get it right; (2) They didn’t begin life as passive and apathetic. Doing the following activity will likely provide you with some insight:

1. Choose a disengaged student you teach. If you don’t have a student who will view your interest as genuine and supportive, rather than intrusive, you could use a family member who was disengaged at school for some period of time. (We all have them!)
2. Work with that person to find out everything you can about the first five years of life. Look at photographs and baby books; listen to their stories of early passions, and share some of your own. If you have chosen a student, review the Kindergarten intake notes and drawings in the student’s records.

Whether you have chosen a student or a family member, understanding the points at which engagement turns to disengagement can inform future teaching decisions and actions.” P. 35

See engagement continuum (descriptors of engaged, disengaged, actively disengaged) on p. 37-38

“For all the similarities between employees and students in the categories on the engagement continuum, there is at least one significant difference. Students fluctuate between categories far more frequently than employees. During any given day – from class to class or even moment to moment – students can jump from one category to another...” p. 38
“Intrinsic motivation theory says that all human beings are genetically driven to achieve a handful of basic needs and that “all of our behaviour is always our best attempt at the time...to satisfy one or more of these basic needs.” (Glasser, 1986 p. 14) The basic needs are
- **survival** – both physical (food, shelter, safety) and emotional (order, security)
- **connection** – belonging and love
- **power / competence** – feeling important; being good at something
- **freedom** – making choices and being free of fear, negative stress and disrespect
- **fun** – play, enjoyment, creativity.”...

Glasser argues that according to his “choice theory” (formerly “control theory”), the majority of students begin school with a positive mental image of learning, but failure or excessive criticism damages this image. When students aren’t developing academic competencies, they give up on academics as a way of achieving power of competence in their lives and search for another way to meet this need for competence. Glasser’s theory is supported by the finding that failing grades or subjects is a key indicator of a student being at risk of dropping out of school. (Ferguson et al., 2005; Hammond, Smink, & Drew, 2007)

Some students achieve their need for competence through sports, music, visual art, or theatre programs, which speaks to the importance of these programs both within the school curriculum and as extracurricular activities. Some students find other, far more detrimental, ways to achieve power in their lives – gang membership, drug abuse, violence, or sexual behaviour.”  P. 40

“According to researchers, if students are to develop academic competence and to be engaged in schoolwork, they need
- a positive, committed connection to an adult who has high expectations and provides appropriate support, feedback, and recognition
- understanding of a task’s purpose and relevance to their lives
- challenging work
- autonomy, where possible, in how the work is to be completed
- confidence that they can be successful.”  P. 46

“Finding: Gallup’s Employee Engagement survey is based on more than 30 years of research with more than 12 million employees. This research has identified 12 core elements that best predict employee performance. Workplace relationships were determined to be so important that 4 of the 12 elements address the quality of these relationships.
Finding: In a survey of four exemplary Grade 9 teachers (Ross et al., 1997), the opportunity to collaborate with others was the single most important contributor to successful destreaming effort (putting students achieving at different levels together in a class).

Implication: Teachers should take advantage of the opportunity to build professional relationships through structures such as professional learning communities, learning teams, and working with others to provide or receive instructional coaching.

Finding: A teacher's relationship with the school principal has a significant impact, positive or negative, on a teacher's level of engagement and development of competence (Leithwood & Beatty, 2008). Trust is central to this relationship because it creates a safe environment for the risk taking necessary for continued learning. (Tschannen-Moran, 2004)

Implication: Teachers and administrators need to work together to build trusting relationships. Trust is a two-way street, but since administrators have evaluative power over teachers, administrators bear the greatest responsibility for building trust. To be perceived as trustworthy, administrators must be consistent, able to maintain confidences, and committed to not using those confidences against a teacher during a performance review.” P. 47-48

Positive Alternatives to Rewards

- “Celebrate. Everything from team cheers to pizza lunches work when they are unexpected and happen after learning.
- Praise students for their efforts and the strategies they use, not their intelligence.
- Teach students to set goals, identify action steps, and regularly assess their progress. Accomplishing even a few small action steps can build intrinsic motivation to continue.
- Provide an appropriate challenge and stand back. A natural reward for learning is the endorphin high that comes from accomplishing something meaningful.
- Share positive news with parents. Parents are a primary source of a student's sense of belonging, even though adolescents may deny it. To make contact easy, consider sending a brief postcard or an email addressed to both student and parents.
- Teach students that self-talk is the way we encourage or discourage ourselves when we work. Use think-alouds and metacognition questions to show students how to talk themselves through day-to-day problems.
- Involve students in self- and peer assessments. Ask them to identify a strength and next step before submitting work to you. Feedback is one of the best sources of intrinsic motivation, no matter who it comes from (Jensen, 1998). For this technique to work, you will need to explicitly teach students
how to give helpful feedback. You will also need to provide clear success criteria through detailed rubrics and (if possible) work samples, so students can be accurate in their feedback.” P. 53

“The key to a self-directed and self-modifying learner is the ability to set meaningful goals... and create the work plans that will help them fulfill (goal) requirements.” Arthur Costa and Benna Kallick

“Disengaged and actively disengaged students often don’t realize that there is a relationship between effort and success. By the time they are adolescents, many disengaged students have had repeated experiences of academic struggle and failure. They protect themselves from more of the same by refusing to make an effort. These adolescents don’t believe anything they do will make any difference to their success, so they go looking elsewhere to achieve their need for competence.” P. 59

“One road is the belief that there is nothing we can do. Some proponents of this road believe that adolescents need to take responsibility for their own learning, and some students will need to experience the “school of hard knocks” before they will make a serious effort. Others believe that years of failure are either impossible to overcome or are a sign that these students are not capable of success. The other road is the belief that self-esteem and confidence need to be enhanced before a student can learn. Proponents of this road believe that adolescents need large doses of success, even if that success comes from lowered expectations or an exclusive focus on building a relationship with the student, independent of academics.” P. 59

Ways to connect Effort and Success

- Guarantee success by asking for small things first. Notice and praise tiny actions that are steps in the right direction.
- Build on incorrect or partially correct answers. Stay with the student who provided the answer, identifying what is right about it or the helpful strategies the student used.
- Allow students to complete activities in a way that works for them. This may ultimately involve choice, but until your students understand who they are as learners, you will likely need to make process decisions for them, based on your understanding of their learning strengths.
- Provide timely feedback. Getting to a student before he or she has given up is critical, as is identifying something positive in the work before requiring improvement.
- Short-term goals make clear the relationship between the effort and success. Recognizing this relationship has been shown to have more impact on goal attainment than does the teaching of time management techniques (Van Overwalle & De Metsenaere, 1990)
Improvement is a clear sign of effort, but it is not an option if students don’t have opportunities to revise or redo their work, or retake a test. Admittedly, some students use redo opportunities to avoid making efforts on their first attempt, but this problem can be minimized by specifying what needs to be improved and how long a student has to make the improvements.

Model appropriate self-talk for students. For example, if a student claims he is too stupid to solve a math problem, counteract this learned pessimism by talking your way through the problem, demonstrating that setbacks are temporary and failure is overcome by perseverance. Guide students to see that sweeping generalizations about their abilities are always inaccurate.

Tell students personal stories about times when you succeeded at a task or achieved a dream because you persisted.” P. 60

Focus on Relevance

“One study found that even if a task was boring or tedious, identifying its relevance resulted in increased student engagement (Assor, Kaplan, & Roth, 2002). Relevance requires both connection and importance. Connection is established when new learning is built upon something already known. New learning, according to brain researchers, must activate a learner’s existing neural networks.

The more relevance or connection, the greater the meaning. Research studies show that personally relevant material more readily transfers from short- to long-term memory (Poldrack et al., 2001) than do facts and skills learned in isolation.

Importance refers to the work that students see as having either immediate value or leading to something of value in the longer term…” p. 62

Relevance Through Student Interests

“Making connections to a student’s interests builds new learning on prior experiences, which supports achievement and addresses the need for competence, which supports engagement.” P. 64

Broaden Your Definition of Intelligence

- Howard Gardner’s Multiple Intelligences in the Classroom (teach via various entry points, sometimes allow students to choose and demonstrate their understanding via these...)
- Sternberg’s Triarchic Intelligences: Analytical Intelligence, Creative Intelligence, Practical Intelligence
  - Some of the time, teach analytically, helping students learn to analyze, evaluate, compare and contrast, critique and judge.
  - Some of the time, teach creatively, helping students learn to create, invent, imagine, discover, explore, and suppose.
o Some of the time, teach practically, helping students learn to apply, use, utilize, contextualize, implement, and put into practice.

o Some of the time, enable all students to capitalize on their strengths.

o Most of the time, enable all students to correct or compensate for their weaknesses.

o Make sure your assessments match your teaching, calling upon analytical, creative and practical as well as memory skills.

o Value the diverse patterns and abilities in all students.

(Sternberg et al., 2000)

**Sometimes Let Them Choose**

“...one of the easiest ways to engage the hypothalamus of anyone is to take away their perception of control. When people are backed into a corner and feel that they are powerless or have no control whatsoever over their situation, the hypothalamus becomes engaged. Once that happens we see destructive, angry and aggressive behaviours.” (Kathie Nunley, 2003. P.51)

“Choice addresses our need for autonomy. It is important in the classroom for different aspects of teaching and learning:

- **differentiated instruction** – It allows students to sometimes choose to work in an area of personal strength.

- **assessment** – Providing choice of assessment tasks will give you a more accurate picture of student understanding.

- **behaviours** – Choice helps students learn to make their own decisions and not follow the crowd.

- **preparation for 21st century realities** – When presented with an increasingly wide range of choices, consumers need to understand how to make good decisions. Initiative and self-direction, two important 21st century skills, develop through choice.” P. 70

“Choice is certainly beneficial for student engagement, but it doesn’t always result in meaningful learning that has an impact on student achievement. Effective choices meet the following criteria:

- All choices address the same learning outcome.

- All choices are engaging and respectful.

- All choices take approximately the same length of time to complete.” P. 74

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**Creativity**

“Albert Einstein was once asked about the difference between his intelligence and everyone else’s. After giving the question some thought he said, “When other people go looking for a needle in a haystack and find it, they stop looking. I keep looking – for second, third, fourth, and fifth needles.” P. 75
“Creativity involves imagining new possibilities, but it goes beyond simple imagining by having a focus on action and on original results that have value.” P. 77

“Applied creativity, or innovation, is the defining characteristic of success in today’s globally competitive marketplace.” P. 78

“…Innovation comes from project teams, the pre-eminent organizational structure of the 21st century workplace. These teams, whose members may work in the same office or around the globe, usually consist of individuals with specialized knowledge and the flexible thought processes that allow them to relate disparate ideas from multiple domains to their own experiences and knowledge…” p. 79

“Creativity thinks up new things; innovation does new things.” Michael Gerber

“Creative thinking requires an outlook that allows us to search for ideas and play with our knowledge and experience. With this outlook, we try different approaches, first one, then another, often not getting anywhere. We use crazy, foolish and impractical ideas as stepping stones to practical new ideas. We break the rules occasionally, and explore for ideas in unusual outside places. And, in the end, our creative outlook enables us to come up with new ideas.” Roger von Oech 2008

“…thinking that encourages us to be curious, question assumptions, and break with the habitual patterns of thought”

“There are writers, musicians, artists, and inventors whose work is so breathtakingly original it seems they have created their own world, invented their own rules. That is rarely the case. It is more likely that the individuals have thoroughly mastered the rules of their domain and achieved superb technical control of their medium. It is not freedom but rather the tension between wide-open thinking and clearly defined parameters that breeds superior results.” P. 88

“When forced to work within a strict framework the imagination is taxed to its utmost – and will produce the richest ideas. Given total freedom the work is likely to sprawl.” T.S. Eliot

“The understanding of existing ideas and the creation of new ones rely on making connections – recognizing and comparing similarities and differences across concepts.” P. 90 (via metaphor, simile, analogy)

“When students make connections between a written text and an image, they are practising the skill of transfer – applying knowledge or information gained in one context to another context. Transfer is the ultimate evidence of student understanding.” P. 102

**Visual Literacy**
Numerous research studies confirm this finding: “Text and oral presentations are not just less efficient than pictures for retaining certain types of information: they are way less efficient” (Medina 2008, p. 234). This is called the Pictorial Superiority Effect (PSE). It means that the more visual the input, the greater the recognition and the recall.” P. 100

“Being visually literate means being able to “read” an image – not just the content, the meaning of which may change according to culture and context, but also the composition or syntax of the image. The visually literate reader notices a number of features such as the relative size of different items, the uses of light and shadow, layering of various elements, flow of movement, and perspective…. Consider discussing the images in your subject textbook before students read the print.”

Use / teach visualization techniques (see p. 107)

Benefits of meaningful hands on learning (see p. 108)
“...the benefits for some students are so immediately apparent that neuroscientists such as Joaquin Fuster (2003) are proposing new theories of learning that make action central to all learning except for simple memorization. In Fuster’s theory, education should be focused on building rich neuronal connections in the brain. He argues that the richest connections come from experiences that engage both mind and body in the context of an enriched learning environment where students have multiple exposures to the same information over an extended period of time.” P. 109

Interdisciplinary studies
“The problem with increasing specialization is that we risk losing the connection across disciplines that lead to innovation. Losing these connections is an issue for any society that wishes to stay competitive in our global world, and an issue for adolescents who need to see how the information they are learning and the skills they are developing fit together and affect their lives. Interdisciplinary instruction requires that teachers collaborate to plan work that is coherent and relevant for students, while still honouring the deep understandings that need to be developed in each subject area. For maximum effectiveness it is important that teachers be highly knowledgeable about their subject matter and that the school leaders arrange for additional planning time as well as flexible scheduling when the interdisciplinary work is underway.” P. 110

Community

“Take this stick and break it,” the old man says to the young boy. The boy easily breaks the stick. “That’s an individual,” says the old man. “Now, take this bundle of sticks and break it.”
The boy tries but can’t.
“That’s a community,” says the old man.
- Based on a fable of Aesop p. 117

“...a sense of community” (McMillan & Chavis, 1986) ...develops when individuals in a group feel that they
- belong and matter to one another
- can safely be themselves
- have influence over what happens in the group
- will have their needs met if they support the group as a whole.

When people feel connected to others through community, the basic human need of “belonging” is met. A sense of belonging in a community has been linked to “increased engagement in school activities, lower rates of student burnout, class cutting and thoughts of dropping out, and a higher likelihood of feeling bad when unprepared for class” (Bluestein, p. 2001, p. 100)....

In contrast, the absence of this sense of belonging in adolescents – of connection with both peers and adults who accept, value, and care about them – is considered at least partially responsible for many of the worrying traits we see more and more in young people: aggression, poor self-image, inability to defer gratification, resentment towards authority, and delinquency (Bluestein, 2001). Some research also suggests that students with fewer social connections are much more likely to become addicted to drugs and alcohol (Restak, 1995).” P. 118-119

“Despite issues with disengaged adolescents, teachers are generally in a privileged place when it comes to connection with students. There isn’t the strong emotional tie that teens have with their parents, so there isn’t the same intensity of conflict. Our relationship with students presents us with the opportunity to make a positive difference. A large longitudinal study found that connection to a positive adult at school and a positive adult outside of school were the two most significant factors in preventing negative outcomes (Schaps, 1999). Teachers are often able to serve as the significant role models and mentors that adolescents need.... “Role model” might be a more accurate job title for teachers than we once thought.” P. 124

“Creating a sense of belonging and connection is necessary but not sufficient. A classroom community that promotes intellectual engagement and student achievement is a community focused on learning.” P. 125

“...professional learning communities play an important role in our schools. They provide us with an opportunity to look at school data, analyze and interpret that data, and plan actions we will take as a result. To me, professional learning communities are an invaluable way of creating change by encouraging a focus on
collaborative reflection and action in the midst of the busy and often isolating environment of a school.” P. 127

“There is not power equal to a community discovering what it cares about.” P. 127

“...a few understandings that will help to make any conversation safer and more powerful for all:
- Deliberately slow down so there is time to think and reflect. (Wheatley, 2002)
- Remember that this is just a conversation. You do not need to convince anyone of anything. Be open to other points of view.
- Conversation is natural. We all know how to do it. That doesn’t mean it will be easy. Expect it to get messy (Wheatley, 2002).” P. 128

“Emotions affect both motivation and learning. Motivation and attention are related – we pay more attention to things that motivate us, and we are motivated by what we attend to. The amygdala (the part of the brain that help to create and maintain emotions) pays more attention to information and events that are emotionally charged that to those that are emotionally neutral. The specific aspect of the information or event that draws attention varies with the individual, making it important to present new information in a variety of ways...Once the amygdala has connected emotion to a piece of information, it will be remembered for a long time and with great accuracy.” P. 130

“Learning is diminished when adolescents feel threatened by any of a number of situations, such as the following:
- anything that embarrasses them or makes them stand out
- unrealistic deadlines and expectations
- a belief that the teacher doesn’t like them
- a belief that no matter what they do, they cannot be successful
- criticism
- assessments used to “catch” them for not doing the work or not understanding
- one-sized-fits-all teaching and assessing.” P. 131

“The people who influence you are people who believe in you.” Henry Drummond

“Remembering Eric Jensen’s caution that we need to remove threats before adding positive elements, consider which of the boxes you’ve left unchecked represent a threat to your class, and work to address them.
In my classroom...
--- I use positive, inviting language with all students; for example, “You can do it” and “I won’t give up on you.”
--- I either don’t use sarcasm or I use it cautiously because I know that students can easily misinterpret it.
--- I provide my students with meaningful choices whenever possible, so they achieve their need for autonomy and feel in control of their work.
--- I actively work to build and maintain a positive relationship with each student.
--- I use a variety of activities to ensure that my students know one another by name and are comfortable working together.
--- I use plenty of partner and group activities so students can interact socially while learning.
--- I instruct and assess in a variety of ways to meet the varying needs, interests, and preferences of my students in order to support everyone’s success.” P. 133

“When students are asked about the qualities of good teachers, caring is always at or near the top of the list. Caring is evident when teachers “check in” with students through actions that include the following:

- Walking around the room talking to everybody to see how they are doing and to answer questions.
- Helping with school work.
- Noticing and inquiring about changes in behaviour.
- Recognizing different learning styles and speeds.
- Seeking to know students are unique human beings.
- Showing respect for students by having one-on-one conversations with them in a quiet voice or in private.
- Doing a good job of explaining the content, making sure that all students understand.
- Encouraging students to improve.” P. 134

p. 138ff – Koinonia – great ideas for conversations that maintain community... promote true dialogue (dialogue, clarification, honesty...)

“Under the right conditions, both students and teachers find that working with others is more engaging than working alone. Considering only the research conducted on adolescents, benefits of working with others include increased in the following areas:

- academic achievement – Two studies (Bowen, 2000; House, 2005) found that working with others improved achievement in science.
- motivation to learn (Slavin, 1990)
- social competencies of cooperation, altruism, and empathy (Aronson, 2000)
- relationships among students (Gillies, 2008)
- self-understanding (Hogan, Nastasi & Pressley, 1999)

A longitudinal study of more than 10 000 high school students surveyed 10 years after graduation found that students who had been rated by their teachers as easily able to relate to others had higher levels of postsecondary education and a higher annual income than those who rated lower on social skills. This finding held true regardless of the student’s intellectual abilities (Lieras, 2008).” P. 144
p. 145ff – great strategies for supporting groups that aren’t great

“Service learning allows students to give back to their community through volunteerism or social justice initiatives that tied to curriculum objectives. Whether students are working at a soup kitchen, the local animal shelter, or the hospital, the benefits are as much to the students as to the community. Disengaged students, in particular, can achieve their need for power or competence through serving as a needed and valued volunteer, or by bringing attention to an issue through online activism.

Place-based learning uses the local community to achieve curriculum objectives…. Social research in the community is a form of place-based learning, as is environmental research in the ponds, swamps, and landfills of the area. Not matter what the subject you teach, there is likely a way to integrate place-based learning. For some disengaged students, the novelty of working outside the school can reignite curiosity and motivation.” P. 149

“Giving back is a powerful ‘hook’ for all youth, especially for those not used to thinking of themselves as successful.” Bonnie Benard

“Think of the entire community as an extension of the classroom, filled with skilled and knowledgeable residents with teaching and learning agendas and capacities of their own.” Anne Lewis and Anne Henderson

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21st Century “Rat Parks” – including technology

Willms, Friesen, & Milton, 2009 measured aspects of classroom and school climate that have an impact on student achievement… and examined the relationship of each measure to student engagement:

- **effective learning time** – efficient use of class time, extent to which important concepts were taught and understood, degree to which course outcomes aligned with homework assignments, and evaluation procedures
- **teacher-student relationships** – student’s perceptions of how teachers treated them
- **classroom disciplinary climate** – extent to which students internalize and conform to classroom norms
- **expectations for success** – teachers having high expectations for all students and valuing academic achievement
- **instructional challenge** – extent to which teachers challenged students… and whether students felt confident about their skills

Hume would also now include:

- **extensive reference to technology**
believes that technology engages – but is concerned about using it to engage in the
service of learning; “Giving students more time on computers or buying interactive
whiteboards for every classroom are actions that, in themselves, will not result in
sustained intellectual engagement... Technology, in my view, is a suite of
tremendously useful tools that can help us engage students in learning, but these
tools are meaningless and even detrimental to that learning without a
predetermined worthwhile purpose.” P. 161 (refers to Wiggins and McTighe’s
backward design)

“...your job is to prepare today’s students for their future, not your past. To do this,
you must use the kinds of tools and learning experiences that will help students
develop marketable 21st century skills. It’s doubtful this can be accomplished in a
technology-free environment.” Susan Brooks-Young, 2007

p. 165 – tech IQ inventory

“Research evidence suggests that technology is indeed engaging, but there is
uncertainty about just what aspects of technology make it so. Some possibilities
include the following:

• Technology promotes active rather than passive learning. There’s a "hands-
on" feel to it, and adolescents regularly report that they prefer hands-on
activities.
• Students are often collaborating with others when they use technology.
• Technology provides greater opportunity for creativity and experimentation.
• Use of technology often involves meaningful and authentic challenge.
  Students may solve a problem or design or create a product. Frequently, the
  product gains additional meaning and relevance through being shared with
  an audience, often one from beyond the classroom.” P. 166-167

“In a study of 32 elementary and secondary teachers whose students had constant
access to Apple computers, researchers (Sandholtz, Ringstaff, & Dwyer, 1994) found
that technology had an enduring impact on student engagement only if four
conditions were met:

1. Computers were used only if they were the most appropriate tool for
  achieving a particular outcome, not just because they were available.
  Teachers used a variety of instructional approaches in their classrooms, and
  students did not become overexposed to computer activities.
2. Computer skills were developed in the context of purposeful learning, rather
  than in “computer classes,” where the purpose was to learn how to use the
  technology.
3. Teachers emphasized use of applications, such as desktop publishing
   software, rather than drill-and-practice programs. Students were more
   engaged when they were permitted to explore and experiment.
4. Teachers differentiated technology use according to students’ interests and
   readiness. Students were challenged at individually appropriate levels.”
“As for impact on learning, study after study has demonstrated that technology enhances student achievement, as long as the chosen technology is appropriate to the purpose of the learning and the technology is used at an appropriate point in the learning. For example, using computers in simulation activities improved math test scores of students in Grades 4 and 8, but using computers to drill math skills for the same test had a negative impact on achievement (Wenglinksy, 1998). The thinking is that students can learn both concepts and skills while solving the problems in a simulation, but if they over-practice skills in a drill situation without a focus on understanding, they will have a difficult time applying those skills to new situations on a test.” P. 167-168

“Tech aficionados point out that computers and various other technologies (such as digital still and video cameras, MP3 players, and cell phones) engage students and affect their achievement by doing the following:

- personalizing instruction and providing immediate feedback
- increasing relevance – for example, through video-based problems or connecting students with experts
- involving students in learning-by-doing through use of modeling software and simulations
- addressing a variety of learning preferences
- helping students construct new knowledge
- providing visual representations of challenging concepts
- fostering collaboration among students
- strengthening connections between school and home – for example, through homework support sites and online school calendars.” P. 168

“Researchers from an early study in the Apple Classrooms of Tomorrow-Today project (Sandholtz, Ringstaff & Dwyer, 1994) found that in classrooms where teachers were willing to relinquish the role of “dispenser of knowledge,” many moved from curriculum-centred to student-centred instruction, with a corresponding student change from passive to active learning. These researchers came to the following conclusion:

We believe that fundamental instructional changes such as these will have an impact on student engagement far more lasting than that of any technological tool in and of itself.”

p. 177 – tips for managing instruction / use of technology

“The reading aspect of 21st century literacy requires that we teach students the skills to “find, navigate, access, decode, evaluate, and organize information from a globally networked information landscape” (Warlick, 2009); the creating aspect requires that students learn and be able to apply the rules of film, graphics and music (Daley, 2004).” P. 180
“While more young people have access to the Internet and other media than any generation in history, they do not necessarily possess the ethics, the intellectual skills, or the predisposition to critically analyze and evaluate their relationship with these technologies or the information they encounter. Good hand/eye coordination and the ability to multitask are not substitutes for critical thinking.”  P. 180

“We must accept the fact that learning how to communicate with graphics, with music, with cinema, is just as important as communicating with words. Understanding these rules is as important as learning how to make a sentence work.”  George Lucas

“For students to experience the sense of community necessary to engagement, they need to feel that they are known by their teachers.” – thus longer periods, fewer classes at a time – also allow for more in-depth inquiry, technology use, and interdisciplinary studies

“Brain researcher John Medina (2008) strongly advises teaching in 10-minute modules, each module beginning with an essential single concept that can be explained in one minute and then elaborated on for the remaining nine minutes. He recommends that teachers explicitly link concepts from one module to the next so students can focus on meaning rather than trying to figure out how ideas fit together. At the end of every 10-minute module, ...regain attention by using emotionally powerful stimuli such as a brief relevant story... (or) have students make connections between a concept and their lives.”  p. 190

-challenge: hard fun

“The most effective way to keep your dopamine system humming, says (psychiatrist Gregory) Berns, is “through novel, challenging experiences.”

-state of Flow – Mihaly Csikszentmihaly (chik-sent-me-high-ee) (p. 197-198) – eight characteristics of a flow experience:
1. The goals are clear. – step-by-step goals, not just the final outcome “Paying too much attention to the outcome will prevent the flow experience and interfere with performance.”
2. Feedback is immediate. – from peers or supervisors, but ideally from the activity itself
3. There is a balance between opportunity and capacity. “just right”
4. Concentration deepens. – not distracted...
5. The present is what matters.
6. Control is no problem. – sense of having the skills to meet the challenge / calm confidence to handle the situation
7. The sense of time is altered.
8. **There is a loss of ego.** "After a flow experience, the sense of self returns and self-esteem soars."

James Gee (2007) – professor of Literary Studies and an expert in the learning potential of video games; some principles to apply to classroom instruction:
- invites participation with others who share similar interests / goals
- develops self-knowledge of strengths and potentials
- supports risk-taking where consequences are minimized
- provides ongoing feedback customized to learner's level and effort
- offers lots of practice in a context that isn’t boring  p. 199

“Our first year of data clearly indicates that intellectual engagement decreases steadily and significantly from Grade 6 to Grade 12. The longer students remain in school, the less likely they are to be intellectually engaged.” Willms, Friesen & Milton, 2009

Quest to Learn (Q2L) school in New York, brainchild of a game designer and professor of design and technology – inquiry-based, technology integrated, focus on higher order thinking tasks and problem solving from a variety of perspectives, integrated, application of knowledge to real-world problems, two week-blocks where students take on roles such as scientist or historian... see p. 201

“For intellectual engagement to happen, students must be presented with real and achievable challenges that they find both interesting and important.” p. 202
- need to teach both content and skills, need to teach thinking skills, need to teach critical literacy skills, need to teach for transfer, need to be “just right” (via differentiated instruction)

- instead of Ds and Fs – NY (not yet)

“If your students are disengaged, you need to change what you are doing.”  P. 208

**Minds On Learning**

p. 210 – 213 – checklist / steps to implement change (e.g. imitate others – hang out with people who are doing the things you’d like to be doing)
-p. 216-217 gradual release model (modeling- guiding-collaborating-independence); moving students from novices to experts requires:
- determination of **background knowledge**
- identifying **misconceptions** (e.g. pre-assess)
- explicitly teaching strategies for students to recognize **patterns**
- **metacognition** - students thinking about what they do & do not understand
- specifically setting a **purpose**
- learning by doing, plenty of opportunity to learn and **practice** in authentic situations with your support
- transfer of learning from one context to another – help students recognize commonalities between problems presented in different contexts, give frequent opportunities to apply learning to new situations

**Inquiry-based learning**

p. 220-221 – chart of variety of inquiry
p.222 – characteristics of inquiry based learning and 11 good reasons to teach through inquiry
p. 224-225 – eight reasons why we don’t teach through inquiry (obstacles / pre-teaching that need to happen…)

p. 226 – great quote from Jodi Picoult re: “what if” way of thinking of a child
“Curiosity is a defining characteristic of creative thinkers and an essential component of inquiry. Curious people tend to have greater analytic ability, problem-solving skills, and overall intelligence (Kashdan, 2009). Curious people are also more engaged in their work than others because curiosity sparks imagination and wonder, and also challenges our deepest assumptions.” P. 226

“The cure for boredom is curiosity. There is no cure for curiosity.” Dorothy Parker

- importance of good questions... get students to pose questions “Once you have learned to ask questions – relevant and appropriate and substantial questions – you have learned how to learn and no one can keep you from learning whatever you need to know.”

**Differentiated instruction**

- All differentiated activities address the same outcome and are assessed using the same rubric or other assessment structure.
- All differentiated activities require about the same time to complete and present a similar degree of complexity.
- All activities are equally engaging and equally respectful.

-Differentiated can be based on student interests, learning preferences, or readiness.
-Readiness: attending to student’s background knowledge, skill level, and understanding relative to a concept or skill you are teaching/ determined through pre-assessment to determine whether each student is working at grade level, striving to do so, or excelling – leads to thinking of or placing students in three short-term, flexible groupings (see chart p. 231)

**Power of talk:** recognizing its importance, creating a supportive environment for meaningful talk, asking effective questions, teaching students to think
“Learning is a social phenomenon where students use talk to engage with ideas, create meaning, and accomplish tasks. Developing students’ skills of analysis, synthesis, and evaluation often happens through talk – we ask essential questions and model for students how to use those questions to generate hypotheses, reason logically, combine ideas, and appraise the quality of our own and other people’s arguments.” P. 232

- less teacher talk needed – more student talk
- need to create an environment that leads to purposeful talk – physical arrangement for small groups or partners to be close enough to hear one another, make eye contact...; opportunities for focused partner and small group talk; where ideas treated with respect, think and wait time, teacher modeling and monitoring...

- teach thinking skills

“What is the nature of the alligators that continue to threaten your engagement as a teacher?” (e.g. technological change? Our beliefs about teaching and learning being challenged?)
“... the greatest influence comes from the collective, not the individual... It is relationship – with ideas, structures and, perhaps especially, with others – that keeps us engaged, and it is engagement that makes change possible. Collaborative IQ is the idea that all of us together are more intelligent, more powerful, and more capable than any of us on our own. Schools and district with high collaborative intelligence enjoy many benefits not experienced in environments where few individuals are shouldering all of the responsibility for change.” P. 241
- power to create change“...only two things help...One is having a strong sense of purpose; the other is collaboration with other who share the sense of purpose.” P. 246

“...happiness is the result of engagement in something we find challenging and compelling, particularly when it makes a contribution to a larger purpose (Kahneman, 2000).


Influencers not always the first ones trying something out – but those in the ‘second wave’; opinion leaders are knowledgeable about the proposed change, dedicated to using their knowledge to help rather than manipulate their colleagues, and willing to spend time in frequent face-to-face dialogue with their colleagues.

“Twitter” summary of each of the six sections in this book
1. Seeking – Whether you measure attendance, connection, or academics, too many students are disengaged. So are their teachers. We need 21st C. plan.

2. Competence – Engagement happens when our basic needs are satisfied and our competencies are recognized. Having a growth mindset helps, too.

3. Creativity – Creativity and innovation are essentials in our 21st C. world. Creative thinking makes a positive difference to engagement.

4. Community – Adolescents are social beings who make varied use of social network sites. Both students and teachers need a sense of community.

5. Context – Technology engages, but that counts only if it is in the service of learning. Many factors combine to create effective 21st C. rat parks.

6. Challenge – Even the most reluctant learner wants challenge. The trick is to provide worthy challenges that meet the conditions of flow.

“Ultimately, what I have learned about student and teacher engagement is that it comes down to the teacher – to the integrity of being what you believe. Whether you are teaching students or adults, they only way to gain trust is to be real: to live your belief that the dignity and potential of the individual learner is paramount, and that your job is to help every learner be amazing. What road through the woods will you choose? Whatever choice you make, be prepared for obstacles along the way.” P. 258

“Rely on your senses, not just your intellect, to understand the world around you. Check your assumptions. Have the courage to act with boldness and conviction. Put your powers into action. And do not be afraid to make mistakes.” P. 259
The Differentiated Classroom: Responding to the Needs of All Learners
By Carol Ann Tomlinson, ASCD, 1999

Summary Points that align with Campbell River School District’s beliefs

“In differentiated classrooms, teachers begin where students are, not the front of a curriculum guide. They accept and build upon the premise that learners differ in important ways. Thus, they also accept and act on the premise that teachers must be ready to engage students in instruction through different learning modalities, by appealing to differing interests, and by using varied rates of instruction along with varied degrees of complexity. In differentiated classrooms, teachers ensure that a student competes against himself as he grows and develops more than he competes against other students.

In differentiated classrooms, teachers provide specific ways for each individual to learn as deeply as possible and as quickly as possible, without assuming one student’s road map for learning is identical to anyone else’s. These teachers believe that students should be held to high standards. They work diligently to ensure that struggling, advanced, and in-between students think and work harder than they meant to; achieve more that they thought they could; and come to believe that learning involves effort, risk, and personal triumph. These teachers also work to ensure that each student consistently experiences the reality that success is likely to follow hard work.

Teachers in differentiated classrooms use time flexibly, call upon a range of instructional strategies, and become partners with their students to see that both what is learned and the learning environment are shaped to the learner. They do not force-fit learners into a standard mold. You might say these teachers are students of their students. They are diagnosticians, prescribing the best possible instruction for their students. These teachers also are artists who use the tools of their craft to address students’ needs. They do not reach for standardized, mass-produced instruction assumed to be a good fit for all students because they recognize that students are individuals.

Teachers in differentiated classrooms begin with a clear and solid sense of what constitutes powerful curriculum and engaging instruction. Then they ask what it will take to modify that instruction so that each learner comes away with understandings and skills that offer guidance to the next phase of learning. Essentially, teachers in differentiated classrooms accept, embrace, and plan for the fact that learners bring many commonalities to school, but that learners also bring the essential differences that make them individuals. Teachers can allow for this reality in many ways to make classrooms a good fit for each individual.” P. 2

“Teachers in differentiated classrooms are more in touch with their students and approach teaching more as an art than as a mechanical exercise.” P. 8
Elements of Differentiation (p. 9-13)

1. The teacher focuses on the essential
   a. Clarity of concepts, principles, and skills;
   b. “Clarity also ensures that teacher, learners, assessment, curriculum, and instruction are liked tightly…”

2. The teacher attends to student differences
   a. “…the teacher unconditionally accepts students as they are, and she expects them to become all they can be.”

3. Assessment and instruction are inseparable
   a. “…assessment is ongoing and diagnostic. Its goal is to provide teachers day-to-day data on students’ readiness for particular ideas and skills, their interests, and their learning profiles. These teachers don’t see assessment as something that comes at the end of a unit to find out what students learned; rather, assessment is today’s means of understanding how to modify tomorrow’s instruction….At benchmark points in learning, such as the end of a chapter or unit, teachers in differentiated classrooms use assessment to formally record student growth. Even then, however, they seek varied means of assessment so that all students can fully display their skills and understandings. Assessment always has more to do with helping students grow than with cataloging their mistakes.”

4. The teacher modifies content, process, and products
   a. “Teachers may adapt one or more of the curricular elements (content, process, products) based on one or more of the student characteristics (readiness, interest, learning profile) at any point in a lesson or unit. However, you need to differentiate all elements in all possible ways. Effective differentiated classrooms include many times in which whole-class, nondifferentiated fare is the order of the day. Modify a curricular element only when (1) you see a student need and (2) you are convinced that modification increases the likelihood that the learner will understand important ideas and use important skills more thoroughly as a result.”

5. All students participate in respectful work
   a. “The teacher...understands that she does not show respect for students by ignoring their learning differences. She continually tries to understand what individual students need to learn more effectively... She shows respect for learners by honoring both their commonalities and difference, not by treating them alike.”
   b. “A teacher in a differentiated classroom embraces at least the following four beliefs
i. Respect the readiness level of each student.
ii. Expect all students to grow, and support their continual growth.
iii. Offer all students the opportunity to explore essential understandings and skills at degrees of difficulty that escalate consistently as they develop their understanding and skill.
iv. Offer all students tasks that look – and are – equally interesting, equally important, and equally engaging."

6. The teacher and students collaborate in learning
   a. “Teachers are the chief architects of learning, but students should assist with the design and building.... Together, teachers and students plan, set goals, monitor progress, analyze successes and failures, and seek to multiply the successes and learn from the failures. Some decisions apply to the class as a whole. Others are specific to an individual.”

7. The teacher balances group and individual norms
   a. “In many classrooms, a student is an “unsuccesful” 5th grader if her falls short of 5th grade “standards.” That the student grew more that anyone in the room counts for little if he still lags behind grade-level expectations. Similarly, a child is expected to remain in 5th grade even though she achieved those standards two years ago. About that student we often say, “She’s fine on her own. She’s already doing well.”... Teachers in a differentiated classroom understand group norms. They also understand individual norms. When a student struggles as a learner, the teacher has two goals. One is to accelerate the student’s skills and understanding as rapidly as possible for that learner, still ensuring genuine understanding and meaningful application of skills. The second is to ensure that the student and parents are aware of the learner’s individual goals and growth and the student’s relative standing in the class. The same is true when a learner has advanced beyond grade-level expectations... A great coach never achieves greatness for himself or his team by working to make all of his players alike...”

8. The teacher and student work together flexibly
   a. Flexible/ varied pacing, groupings (whole, small group, individual), materials, interest, assignments...

Photocopy pages 15 and 16

Brain research informs us that
- “…providing children with rich learning experiences can amplify their intelligence, and denying them such richness of experience can diminish their intelligence.” (research of Caine and Caine, 1991)
“Neurons grow and develop when they are used actively; they atrophy when they are not used.” (Caine and Caine, 1991; Sylwester, 1995) “These theories suggest several clear implications for educators. For example, teachers must be effective in developing many types of intelligence, not just one. Also, student who come to school lacking rich learning experiences can make up lost ground if they find rich experiences in their classrooms. All students must continue vigorous, new learning, or they risk losing brain power.” P. 18

“The brain seeks meaningful patterns and resists meaninglessness. Though the brain retains isolated or disparate bits of information, it is much more efficient at retaining information that is “chunked”...organized around categories and ideas that increase the information’s meaningfulness. The brain constantly seeks to connect parts to wholes...connecting something new to something already (understood)...The brain learns best when it can come to understand by making its own sense out of information rather that when information is imposed on it...It responds far more efficiently to something that carries deep and personal meaning, something that is life shaping, relevant, important, or taps into emotions.” P. 18-19

“...individuals learn best when they are in a context that provides a moderate challenge.” (Csikszentmihalyi, Rathunde & Whalen, 1993; Jensen, 1998; Vygotsky, 1978, 1986) “...students who consistently fail lose motivation to learn. Students who succeed too easily also love motivation to learn. For learning to continue, students must believe that hard work is required, but the hard work often pays off with success....What is moderately challenging and motivating for one learner may offer far too little challenge (and therefore less motivation) for a classmate.”

All of these current findings support the need for differentiated classrooms.

The children we currently teach

- Unlike in history, all students included - from varied cultural, socioeconomic backgrounds... varied abilities...varied family structures... varied support systems... a greater range of backgrounds and needs

“Every child is entitled to the promise of a teacher's enthusiasm, time, and energy. All children are entitled to teachers who will do everything in their power to help them realize their potential every day. It is unacceptable for any teacher to respond to any group of children (or any individual child) as though the children were inappropriate, inconvenient, beyond hope, or not in need of focused attention.” P. 21

- “...heterogeneity usually is a one-size-fits-all endeavor where the learning plan swallows some learners and pinches others. Such classes provide neither equity nor excellence.” P. 22
- “Despite compelling new educational knowledge, classrooms have changed little over the last 100 years. We still assume that a child of a given age is
enough like all other children of the same age that he or she should traverse the same curriculum in the same fashion with all other students of that age. Further, schools act as though all children should finish classroom tasks as near to the same moment as possible. A school year should be the same length for all learners. To this end, school generally adopt a single textbook, give students a single test at the end of the chapter, and another test at the end of designated marking periods. Teachers use the same grading system for all children of a given age and grade, whatever their starting point at the beginning of the year... we need to begin our investigation of how to differentiate instruction for a diverse student population with some important assumptions

  o Students differ in experience, readiness, interest, intelligences, language, culture, gender, and mode of learning. ...
  o To maximize the potential in each learner, educators need to meet each child at his or her starting point and ensure substantial growth during each school term.
  o Classrooms that ignore student differences are unlikely to maximize potential in any student who differs significantly from the “norm.” This is an issue even in “homogeneous” classrooms where student variance is inevitable great.
  o To ensure maximum student growth, teachers need to make modifications for students rather than assume students must modify themselves to fit the curriculum. In fact, children do not know how to differentiate their own curriculum successfully....
  o Classrooms grounded in best-practice education, and modified to be responsive to student differences, benefit virtually all students.”

p. 22-24

“A really good teacher is someone who: knows that a student can teach and a teacher can learn, integrates him(self) or herself into the learning environment, literally taking a seat among the conglomerate of desks, proving that he or she enjoys associating with the minds made of sponges, ready to absorb, appreciates that what one thinks and says is more important than one uses to fill in the blanks.” Krista, Age 17
Jane Bluestein, Editor, Mentors, Masters and Mrs. McGregor: Stories of Teachers Making a Difference

“The content in a healthy classroom is rooted in these realities. Thus, in a healthy classroom, what is taught and learned

  • is relevant to students; it seems personal, familiar, connected to the world they know;
  • helps students understand themselves and their lives more fully now, and will continue to do so as they grow up;
  • is authentic, offering “real” history or math or art, not just exercises about the subject;
• can be used immediately for something that matters to the students; and,
• makes students more powerful in the present as well as in the future.

When subject matter is dynamic, intellectually intriguing, and personal – when it bestows power to the learner – the “details” also become more important and memorable.” P. 30-31

Pages 31-34: Creating a Healthy Classroom - include all … could be the basis of a “course” (photocopy)

“If a teacher isn’t clear about what all students should understand and be able to do when the learning experience ends, he or she lacks the vital organizer around which to develop a powerful lesson.” P. 37

“...two elements are required for a great class: engagement and understanding. Engagement happens when a lesson captures students' imagination, snare their curiosity, ignites their opinions, or taps into their souls. Engagement is the magnet that attracts learners' meandering attention and holds it so that enduring learning can occur.
Understanding means much more than recalling. It means the learner has "wrapped around" an important idea, has incorporated it accurately into his or her inventory of how things work. The learner owns the idea.
A student who understands something can
• explain it clearly, giving examples;
• use it;
• compare and contrast it with other concepts;
• relate it to other instances in the subject studies, other subjects, and personal life experiences;
• transfer it to unfamiliar settings;
• discover the concept embedded within a novel problem;
• combine it appropriately with other understandings;
• pose new problems that exemplify or embody the concept;
• create analogies, models, metaphors, symbols, or pictures of the concept;
• pose and answer questions and hypotheses that lead to new knowledge and further inquiries;
• generalize from specifics to form a concept;
• use the knowledge to appropriate assess his or her own performance, or that of someone else (adapted from Barell, 1995).” P. 38

“During planning, a teacher should generate specific lists of what students should know (facts), understand (concepts and principles), and be able to do (skills) by the time the unit ends. Then the teacher should create a core of engaging activities that offer varied opportunities for learning the essentials she has outlined. These activities should lead a student to understand or make sense of key concepts and principles by using key skills.” P. 40 (great example of this p. 42)
photocopy p. 41 – examples of the levels of learning

“An activity is likely to be effective if it
• has a clearly defined instructional purpose,
• focuses students squarely on one key understanding,
• causes students to use a key skill to work with key ideas,
• ensures that students will have to understand (not just repeat) the idea,
• helps students relate new understandings and skills to previous ones, and
• matches the student level of readiness.” P.43

“A culminating product might take the form of a demonstration or exhibition. Students could design a solution to a complex problem or undertake a major research and writing. A culminating product could be a test, or it could be a visual display, such as a narrative photo essay. An effective assignment for a culminating product will:
• Clearly lay out what students should demonstrate, transfer, or apply to show what they understand and can do as a result of the study.
• Provide one or more modes of expression.
• Lay out clear, precise expectations for high quality content (information, ideas, concepts, research sources); steps and behaviors of developing the product (planning, effective use of time, goal setting, originality, insight, editing); and the nature of the product itself (size, audience, construction, durability, format, delivery, mechanical accuracy).
• Provide support and scaffolding for high quality student success. (For example, provide opportunities to brainstorm ideas, delineate rubrics, and establish time lines. Conduct in-class workshops on use of research materials, or provide opportunities for peer critiques and peer editing.)
• Provide for variations in student readiness, interest, and learning profile.” P.44

Photocopy p. 45 – joining levels of learning and elements of curriculum

pp. 49-54 – examples of differentiation and skills – focused instruction
pp. 54 – 60 – examples of differentiation and concept-based instruction

pp.61-74 – great examples of instructional strategies where “students have the opportunity to work at a comfortable pace, at an individually challenging degree of difficulty, in a learning mode that is a good match for their learning profiles, and with applications that are personally intriguing.” p. 62 (also – multiple intelligences identified / developed and combined with others, building on strengths, shoring up deficits, fostering independence, developing personally interesting topics/developing expertise related to the curriculum in multiple ways...)
strategies – **stations** (e.g. math stations in grade 4), **agendas** (e.g. various subjects – grade 5), **complex instruction** (e.g. grade 10 English), **orbital studies** (various subjects – grade 6) - very exciting and inspiring examples

more strategies pp. 75 -93 – **centers** (e.g. multi age – dinosaurs); **entry points** - using Howard Gardner’s narrational, logical-quantitative, foundational, aesthetic, and experiential entry points (e.g. grade 7- Middle ages); **tiered activities** (e.g. grade 8 ozone study) – WONDERFUL planning model for developing essential understandings and skills at different levels of complexity, abstractness, and open-endedness - photocopy model on p. 85), **learning contracts** (e.g. grade 4 poetry)...

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pp 95 -101 – great strategies for getting started and managing a differentiated classroom

- examining / formulating beliefs about individual needs,
- starting small
  - setting the stage re:expectations with anchor activities that the whoe class works on
  - then, having one group work on anchor activities while another group works on a different task
  - trying differentiated activities for a small block of time
- grow slowly – but grow
  - take notes on your students each day
  - (pre-)assess students before you begin to teach a skill or topic
  - look at all student work as indicators of needs, not just marks
  - try creating one differentiated lesson per unit
  - differentiate one product per semester
  - find multiple resources
  - establish class criteria for success – work with students to add personal criteria to their list
  - give students more choices about how to work, how to express learning, which homework assignments to do... (structured choices)
  - develop and use a two-day learning contract during first term, four-day contract second term, week-long contract third term
- envision how an activity will work – anticipate and plan for possible problems...
- step back and reflect
  - Which students seemed engaged in learning? Which were not? Why do you think - in either case?
  - What evidence do you have that each student understood or “owned” what you hoped they would? Do you need to gather more evidence?
  - How do you feel about the intro you gave to the lesson / activity? – Directions clear? Materials at hand? Timing?...
  - As the time progressed, how well did the students stay focused? ...
Develop student metacognition
- assessing their perceived strengths and needs,
- helping them learn that everyone’s strengths, needs and learning preferences vary,
- helping them understand the qualities of a differentiated classroom e.g. students supporting one another, taking more responsibility for the operation of the class so everyone can learn, assignments will differ, classroom will look different – wider range of materials, more movement...
- involving students in developing guidelines and procedures...

pp. 101 – 107 - practical considerations
- giving thoughtful directions e.g.
  - start the whole class on a familiar task – then, once students have settled in, meet with one small group to give directions for a differentiated task
  - give directions today to a careful listener to give to their group tomorrow
  - use task cards
  - use tape-recorded directions
  - put directions on an overhead or chart
  - teach prior skills to the whole class (e.g. how to use a particular graphic organizer, how to work in co-op groups) before assigning them independently
  - make yourself “off-limits” at strategic times
- establish routines e.g.
  - teach active listening – replay ideas and directions in their heads, summarizing out loud to a partner...
  - when not sure what to do, use RICE – Recall what was said; if that doesn’t work, Imagine logically what the directions would have been; if that doesn’t work, Check in a whisper with a classmate / someone in your group, check with the Expert of the day
  - when really stuck, and waiting for help... work on a pre-approved anchor activity
- stay aware, stay organized – especially in a differentiated classroom
  - use student work folders – all work in progress and complete, record-keeping sheet (document work complete and date, conferences, reflections...)
  - make a list of all skills and competencies you want your students to master in each facet of the subject; turn these into a sequentially arranged checklist; make one checklist for each student and keep in alphabetical order in binder; periodically spot check work using the checklist... record observations... look for pattern of individual growth
o establish carefully organized and coded places for students to place completed assignments
o carry a clipboard – for assessment notes for future planning
o don’t feel compelled to grade everything – sometimes the students are figuring things out... at these times, note engagement, focus, effort, ...

“Differentiating instruction is not an instructional strategy or a teaching model. It’s a way of thinking about teaching and learning that advocates beginning where individuals are rather than with a prescribed plan of action, which ignores student readiness, interest, and learning profile. It is a way of thinking that challenges how educators typically envision assessment, teaching, learning, classroom roles, use of time, and curriculum.” P. 108

leadership – in departments, schools, districts:
- examine your beliefs – what is motivating the change?
- establish a shared vision with clear goals
- avoid overload
- start small – try a few pilot teachers and classrooms
- begin with teachers who have the skill and will to change
- create teams of teachers who can work together, share ideas and materials, troubleshoot, co-teach, observe one another and provide feedback...
- model the process of differentiation with teachers who are at different places along the learning continuum, with different readiness levels, interests, and learning profiles
- examine policies and procedures e.g. Should we / how can we...
  o adjust school schedules for larger blocks of uninterrupted time?
  o adopt multiple texts vs. one text for a given subject and grade level?
  o modify reports to look at personal growth?
  o consider narrowing range of learners in some classrooms – to help teachers in early stages of learning to cope with differentiation?
  o be innovative in order to reduce class size, find more helpers, increase classroom space... for teachers willing to significantly differentiate instruction?
  o Support teachers with communication with parents re: differentiated instruction

Staff development
- time for input, followed by time for teachers to make sense of the new ideas;
provide time and structure for reflection, to set short- and long-term goals, to create specific implementation plans.... Apply pressure and offer support
- see pp. 112 ff
- photocopy pp 116-117 – possible teacher assessment re: professional responsibility
Respectful Relationships are fundamental to successful learning.

“Classrooms are small universes. In those universes, we learn to accept and appreciate one another’s variances— or we learn to resent and be suspicious of differences. We learn to celebrate one another’s victories and support one another’s efforts— or we learn to compete in ways that undermine rather than dignify those with whom we share time and space.

In a differentiated classroom, it is crucial for students to accept and ultimately understand both their commonalities and differences. The classroom has to be a place where each student feels safe (not seen as a failure, a nerd, a test score, a social pariah) and also challenged (to become the best that student can be). An atmosphere of unequivocal respect for each member of the learning community opens doors for possibilities for each member of that community.

Teachers in such classrooms

- Attend to each student in ways that communicate respect and positive expectation.
- Seek out, affirm, and draw on the unique abilities of each learner.
- Elicit and value multiple perspectives on issues, decisions, and ways of accomplishing the work of the class.
- Make sure that all students are called upon to participate regularly— with no student or group of students either dominating the class or receding from participation in it.
- Help students identify and adhere to constructive ways of interacting with one another.
- Design tasks that enable each student to make important contributions to the work of the group.
- Ensure that the languages, cultures, and perspectives of varied cultures are represented to improve the work of the group.
- Help students reflect on the quality of their contributions to the developing classroom community.
- Seek and respond to students’ ideas about how to foster respect in the classroom.”

Carol Ann Tomlinson and Jay McTighe, Integrating Differentiated Instruction and Understanding By Design, ASCD 2006 p. 45-46

“...a “sense of community... develops when individuals in a group feel that they

- belong and matter to one another
- can safely be themselves
- have influence over what happens in the group
- will have their needs met if they support the group as a whole.
When people feel connected to others through community, the basic human need of “belonging” is met. A sense of belonging in a community has been linked to “increased engagement in school activities, lower rates of student burnout, class cutting and thoughts of dropping out, and a higher likelihood of feeling bad when unprepared for class.” (Gopnik, Meltzoff, and Kuhl 1999)...

In contrast, the absence of this sense of belonging in adolescents – of connection with both peers and adults who accept, value and care about them - is considered at least partially responsible for many of the worrying traits we see more and more in young people: aggression, poor self-image, inability to delay gratification, resentment towards authority, and delinquency (Bluestein, 2001). Some research also suggests that students with fewer social connections are much more likely to become addicted to drugs and alcohol (Restak, 1995).

We all belong to a number of different communities, some of which provide a stronger sense of community than others. For many adolescents, the strongest sense of community comes through interaction with their peers.”

“Intrinsic motivation theory says that all human beings are genetically driven to achieve a handful of basic needs and that “all of our behaviour is always our best attempt at the time...to satisfy one or more of these basic needs.” (Glasser, 1986 p. 14) The basic needs are

- **survival** – both physical (food, shelter, safety) and emotional (order, security)
- **connection** – belonging and love
- **power / competence** – feeling important; being good at something
- **freedom** – making choices and being free of fear, negative stress and disrespect
- **fun** – play, enjoyment, creativity.”

“Finding: Gallup’s Employee Engagement survey is based on more than 30 years of research with more than 12 million employees. This research has identified 12 core elements that best predict employee performance. Workplace relationships were determined to be so important that 4 of the 12 elements address the quality of these relationships.

*Finding: In a survey of four exemplary Grade 9 teachers (Ross et al., 1997), the opportunity to collaborate with others was the single most important contributor to successful destreaming effort (putting students achieving at different levels together in a class).

*Implication: Teachers should take advantage of the opportunity to build professional relationships through structures such as professional learning communities, learning teams, and working with others to provide or receive instructional coaching.

*Finding: A teacher's relationship with the school principal has a significant impact, positive or negative, on a teacher's level of engagement and development of competence (Leithwood & Beatty, 2008). Trust is central to this relationship.
because it creates a safe environment for the risk taking necessary for continued learning. (Tschannen-Moran, 2004)

**Implication:** Teachers and administrators need to work together to build trusting relationships. Trust is a two-way street, but since administrators have evaluative power over teachers, administrators bear the greatest responsibility for building trust. To be perceived as trustworthy, administrators must be consistent, able to maintain confidences, and committed to not using those confidences against a teacher during a performance review.” P. 47-48

“Despite issues with disengaged adolescents, teachers are generally in a privileged place when it comes to connection with students. There isn’t the strong emotional tie that teens have with their parents, so there isn’t the same intensity of conflict. Our relationship with students presents us with the opportunity to make a positive difference. A large longitudinal study found that connection to a positive adult at school and a positive adult outside of school were the two most significant factors in preventing negative outcomes (Schaps, 1999). Teachers are often able to serve as the significant role models and mentors that adolescents need....“Role model” might be a more accurate job title for teachers than we once thought.” P. 124

“Learning is diminished when adolescents feel threatened by any of a number of situations, such as the following:

- anything that embarrasses them or makes them stand out
- unrealistic deadlines and expectations
- a belief that the teacher doesn’t like them
- a belief that no matter what they do, they cannot be successful
- criticism
- assessments used to “catch” them for not doing the work or not understanding
- one-sized-fits-all teaching and assessing.” P. 131

“The people who influence you are people who believe in you.” Henry Drummond

“Remembering Eric Jensen’s caution that we need to remove threats before adding positive elements, consider which of the boxes you’ve left unchecked represent a threat to your class, and work to address them.

In my classroom...
--- I use positive, inviting language with all students; for example, “You can do it” and “I won’t give up on you.”
--- I either don’t use sarcasm or I use it cautiously because I know that students can easily misinterpret it.
--- I provide my students with meaningful choices whenever possible, so they achieve their need for autonomy and feel in control of their work.
--- I actively work to build and maintain a positive relationship with each student.
--- I use a variety of activities to ensure that my students know one another by name and are comfortable working together.
--- I use plenty of partner and group activities so students can interact socially while learning.
--- I instruct and assess in a variety of ways to meet the varying needs, interests, and preferences of my students in order to support everyone’s success.” P. 133

“When students are asked about the qualities of good teachers, caring is always at or near the top of the list. Caring is evident when teachers “check in” with students through actions that include the following:

- Walking around the room talking to everybody to see how they are doing and to answer questions.
- Helping with school work.
- Noticing and inquiring about changes in behaviour.
- Recognizing different learning styles and speeds.
- Seeking to know students are unique human beings.
- Showing respect for students by having one-on-one conversations with them in a quiet voice or in private.
- Doing a good job of explaining the content, making sure that all students understand.
- Encouraging students to improve.” P. 134

p. 138ff – Koinonia – great ideas for conversations that maintain community... promote true dialogue (dialogue, clarification, honesty...)

“Under the right conditions, both students and teachers find that working with others is more engaging than working alone. Considering only the research conducted on adolescents, benefits of working with others include increased in the following areas:

- academic achievement – Two studies (Bowen, 2000; House, 2005) found that working with others improved achievement in science.
- motivation to learn (Slavin, 1990)
- social competencies of cooperation, altruism, and empathy (Aronson, 2000)
- relationships among students (Gillies, 2008)
- self-understanding (Hogan, Nastasi & Pressley, 1999)

A longitudinal study of more than 10,000 high school students surveyed 10 years after graduation found that students who had been rated by their teachers as easily able to relate to others had higher levels of postsecondary education and a higher annual income than those who rated lower on social skills. This finding held true regardless of the student’s intellectual abilities (Lieras, 2008).” P. 144

p. 145ff – great strategies for supporting groups that aren’t great

“Service learning allows students to give back to their community through volunteerism or social justice initiatives that tied to curriculum objectives. Whether
students are working at a soup kitchen, the local animal shelter, or the hospital, the benefits are as much to the students as to the community. Disengaged students, in particular, can achieve their need for power or competence through serving as a needed and valued volunteer, or by bringing attention to an issue through online activism. Place-based learning uses the local community to achieve curriculum objectives.... Social research in the community is a form of place-based learning, as is environmental research in the ponds, swamps, and landfills of the area. Not matter what the subject you teach, there is likely a way to integrate place-based learning. For some disengaged students, the novelty of working outside the school can reignite curiosity and motivation.” P. 149

“Giving back is a powerful ‘hook’ for all youth, especially for those not used to thinking of themselves as successful.” Bonnie Benard

“Think of the entire community as an extension of the classroom, filled with skilled and knowledgeable residents with teaching and learning agendas and capacities of their own.” Anne Lewis and Anne Henderson


“Culture and Community Characteristics

The school environment is inviting, safe, inclusive, and supportive of all. (School Environment)

A successful school for young adolescents is an inviting, supportive, and safe place – a joyful community that promotes in-depth learning and enhances students’ physical and emotional well-being. In such a school, human relationships are paramount.

The essence of a happy, healthy school is reflected in the talk one hears. Staff members are cordial to each other, teachers and administrators call students by name, and students interact comfortably and respectfully with adults and peers. Statements of encouragement and positive feedback substantially outnumber disciplinary or correctional comments. Interactions among staff members and between students reflect fairness and mutual respect. Teachers, staff, and students learn and put into practice the skills of direct feedback, mediation, healthy and appropriate confrontation, problem solving, positive risk taking, and personal and collaborative goal setting.

Everyone in an inviting school works proactively to eliminate harassment, verbal abuse, bullying, and name-calling. Students and teachers understand that they are part of a community in which differences are respected and celebrated. When an egalitarian concept is embedded in daily school life, less time is devoted to settling
disputes and managing discipline. The safe and supportive environment encourages students to take intellectual risks, to be bold with their expectations, and to explore new challenges. Every student – no matter what creed, color, or uniqueness – is a genuine and contributing member of the school community.

Effective middle grades schools develop structures that ensure students will be known as individuals and feel cared for and valued. Instructional teams are essential to the process of creating learning communities. The team is a home away from home – the place where students work and learn together with teachers and classmates with whom they identify.

The school buildings and campus make an immediately visible statement about caring. An attractive, inviting, clean, and structurally sound physical plant is an expression of a supportive and safe environment. Students work is prominently displayed, an indication that learning is a school priority. Like the young adolescents themselves, the climate of a developmentally responsive middle level school requires constant nurturing.

Middle grades educators, students, and their families plan and implement effective transition programs in cooperation with the elementary school and the high school. Such programs ensure all students entering a new school are successfully integrated into the school and are able to maintain their academic and social progress. These transition programs are ongoing procedures that require multiple opportunities for students and their families to become familiar with and involved in various activities over time.

Every student’s academic and personal development is guided by an adult advocate. (Adult Advocate)

Academic success and personal growth increase markedly when young adolescents’ affective needs are met. Therefore, every adult in a developmentally responsive middle level school serves as an advocate, advisor, and mentor. The concept of advocacy is fundamental to the school’s culture, embedded in its every aspect. Advocacy is not a singular event or a period in the schedule, it is an attitude of caring that translates into actions, big and small, when adults respond to the needs of each young adolescent in their charge.

Young adolescents have many concerns about matters that lie outside the parameters of the academic curriculum, and they need opportunities to dialogue about these with one another and with a trusted adult. Each student must have one adult in the school who assumes special responsibility for supporting that student’s academic and personal development. This adult is a model of good character who is knowledgeable about the development of young adolescents, enjoys working with them, and easily comes to know students well as individuals. Such advisors are not counselors, but they listen to and guide youth through the ups and downs of school life.
When students and their advisors meet regularly during the school day, an advisory program helps students develop respect for self and others; compassion; a workable set of values; and the skills of cooperation, decision making, and goal setting. The advisory program designed for the specific culture of the school and community meets the needs of that school’s students. Advisors receive ongoing professional development to help them fulfill this vital role.

Serving as the primary liaison between the school and family, the advisor initiates contact with parents to provide pertinent information about the student’s program and progress and receives call from any family member with a concern. Helping families stay engaged in their children’s education is a critical and difficult task. Students seeking independence often prefer to keep home and school separate, but active two-way communication leads to higher student achievement.

Advisors are in a position to recognize behavioral changes in students that should be brought to the attention of counselors, administrators, teachers, and parents. Advisors and all staff members should facilitate healthy and caring peer relationships by modeling the interpersonal relationships that define the school vision. Protecting young adolescents from bullying, for instance, begins when teachers in their classrooms and the total culture of the school promote compassion, understanding and mutual respect.

To assist educators in fulfilling this advisory role, schools use a variety of organizational arrangements such as scheduled meetings of advisors and advisees, extended homerooms, and team-based mentorships. Such advisory efforts augment but do not replace comprehensive guidance and counseling services. Successful middle grades schools provide continuity of caring and support that extends not only throughout the day but throughout the entire middle level experience.

The importance of students’ having adults who care about them is so essential that schools should look beyond school personnel for additional assistance. Volunteers from business partners, tutors, retired teachers, academic and athletic coaches, and personnel in after-school programs can connect with students and also serve as role models and advocates.” P. 33-36

“The school actively involves families in the education of their children.
(Family Involvement)

More than ever, schools and families must work together to provide the best possible learning experiences for every young adolescent. Too many parents become less involved in the middle grades school than they were in elementary school, believing that they children need less support at this level. Continuing parental involvement is as important as ever, so schools must create a family-friendly environment and take the initiative in forging needed home-teacher-school bonds. Frequently, parents are uncertain about how they can be involved in this
new, and often larger, school and may also be unsure about the most appropriate way to deal with their rapidly changing and maturing child but are hesitant to see assistance.

Research studies clearly link the involvement of both family and other adults in the community with higher levels of student achievement, improved student behavior, and greater overall support for schools. Successful middle level schools promote family involvement by sponsoring parent education programs, creating and maintaining links between home and school, initiating volunteer programs, and establishing coordinated home-school learning experiences.

Ultimately, the school staff must work aggressively to make families feel welcome in the school – and partner with them in the education and development of their shared young people. Schools should communicate an expectation that families will take advantage of opportunities provided to support student learning. Further, families should be encouraged to spend time engaged in their children’s learning, thus demonstrating their belief in the importance of school success. When collaborating with families, educators must be sensitive to local and cultural considerations and to the various types of family structures.” P. 40 - 41

“When students routinely assume the role of teacher, and teachers demonstrate that they are still learners, the conditions of a genuine learning community are present. Teachers participate actively in learning activities rather than just being observers of students at work. Such collaboration leads to increased achievement, demonstrates democratic processes, and furthers meaningful student-teacher relationships.” P. 17

**NMSA (National Middle School Association)**, This We Believe: Keys to Educating Young Adolescents

“Research indicates that the most powerful influences on whether and what children learn occur in the teacher’s interactions with them, in the real-time decisions the teacher makes throughout the day. It is the teacher’s classroom plans and organization, sensitivity and responsiveness to all the children, and moment-to-moment interactions with them that have the greatest impact on children’s development and learning. The way teachers design learning experiences, how they engage children and respond to them, how they adapt their teaching and interactions to children’s background, the feedback they give – these matter greatly in children's learning. And none can be fully determined in advance and laid out in a curriculum product or set of lesson plans that every teacher is to follow without deviation. Teachers will always have moment-to-moment decisions to make. To make these decisions with well-grounded intentionality, teachers need to have knowledge about child development and learning in general, about the individual
children in their classrooms, and about the sequence in which a domain’s specific concepts and skills are learned. Teachers also need to have at the ready a well-developed repertoire of teaching strategies to employ for different purposes…” p. 8

“It is imperative to make developing teacher quality and effectiveness a top priority... time for teachers to collaborate with colleagues, discuss and observe best practices, and participate in meaningful professional development... make teaching quality and effectiveness a top priority.” P. 8/9

“Children develop best when they have secure, consistent relationships with responsive adults and opportunities for positive relationships with peers. “The first and most important relationships are those a child forms with parents and other primary caregivers....Young children benefit from opportunities to develop ongoing, trusting relationships with adults outside the family and with other children. Notably, positive teacher-child relationships promote children’s learning and achievement, as well as social competence and emotional development... Nurturing relationships are vital in fostering high self-esteem and a strong sense of self-efficacy, capacity in resolving interpersonal conflicts cooperatively, and the sociability to connect with others and form friendships. Further, by providing positive models and the security and confidence to try new experiences and attempt new skills, such relationships support children’s learning and the acquisition of numerous capacities.” P. 13

“In developmentally appropriate practice, practitioners create and foster “a community of learners” that supports all children to develop and learn. The role of the community is to provide a physical, emotional and cognitive environment conducive to that development and learning. The foundation for the community is consistent, positive, caring relationships between adults and children, among children, among teachers, and between teachers and families...”

To create a caring community of learners, practitioners ensure that the following occur...

- Each member of the community is valued by the others - children observe and participate, learning about themselves and their world and how to develop positive, constructive relationships; each child has unique strengths, interests and perspectives to contribute; they learn to respect and acknowledge the differences...and to value each person.

- Relationships are important. Children construct their understanding of the world via interactions with adults and peers; opportunities to play together, collaborate on investigations and projects, talk with peers and adults enhances development and learning; small group conversations enable children to extend their thinking, build on one another’s ideas, and solve problems cooperatively.

- Each member of the community respects and is accountable to others – teachers help children develop responsibility and self-regulation; teachers are responsible at all times for all children under their supervision – monitoring, anticipating, preventing, and redirecting behaviors not
conducive to learning or disrespectful...; teachers set clear and reasonable limits on children’s behavior and apply those consistently – also help children be accountable for themselves and others; teachers listen to and acknowledge children’s feelings and frustrations; teachers demonstrate high levels of responsibility and self-regulation.

- Practitioners design and maintain the physical environment to protect the health and safety of all – including physiological needs for activity, sensory stimulation, fresh air, rest, nourishment, interacting with the outdoor world...
- Practitioners ensure that everyone in the learning community feels psychologically safe – leave participants feeling secure, relaxed, comfortable...rather than disengaged, frightened, worried, or unduly stressed; teachers foster enjoyment and engagement in learning; ...

**NAEYC (National Association for the Education of Young Children), Position Statement: Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8, 2009**

“The longitudinal study of Trust in Schools (Bryk and Schneider, 2002), provides evidence that schools with low levels of relational trust have only a one-in-seven chance of demonstrating improved academic learning.” P. 7

“In schools where there are regular times early in the day for teacher collaboration, the process of examining strengths and weaknesses in the new approach is much easier... **Action and conversation are key... dialogue is vital.”** P. 12

“When people... change to a growth mindset, they change from a judge-and-be-judged framework to a learn-and-help-learn framework. Their commitment is to growth and growth that takes plenty of time, effort, and mutual support.”

Carol Dweck, 2006

“Leadership in schools is about making a difference in the lives of every learner. Intense moral purpose is connected with passionate and persistent intensity... The moral purpose mindset asks schools to explore what the notions of quality and equity mean, and to consider the implications of developing new forms of quality.”

P. 6

“Passion is not a luxury, a frill or a quality possessed by just a few principals. It is essential to sustaining successful leadership.”

Christopher Day and Ken Leithwood, 2007

All learners vary in their learning styles, prior knowledge and experiences, abilities and rates of development.

“In differentiated classrooms, teachers begin where students are, not the front of a curriculum guide. They accept and build upon the premise that learners differ in important ways. Thus, they also accept and act on the premise that teachers must be ready to engage students in instruction through different learning modalities, by appealing to differing interests, and by using varied rates of instruction along with varied degrees of complexity. In differentiated classrooms, teachers ensure that a student competes against himself as he grows and develops more than he competes against other students.

In differentiated classrooms, teachers provide specific ways for each individual to learn as deeply as possible and as quickly as possible, without assuming one student’s road map for learning is identical to anyone else’s. These teachers believe that students should be held to high standards. They work diligently to ensure that struggling, advanced, and in-between students think and work harder than they meant to; achieve more that they thought they could; and come to believe that learning involves effort, risk, and personal triumph. These teachers also work to ensure that each student consistently experiences the reality that success is likely to follow hard work.

Teachers in differentiated classrooms use time flexibly, call upon a range of instructional strategies, and become partners with their students to see that both what is learned and the learning environment are shaped to the learner. They do not force-fit learners into a standard mold. You might say these teachers are students of their students. They are diagnosticians, prescribing the best possible instruction for their students. These teachers also are artists who use the tools of their craft to address students’ needs. They do not reach for standardized, mass-produced instruction assumed to be a good fit for all students because they recognize that students are individuals.

Teachers in differentiated classrooms begin with a clear and solid sense of what constitutes powerful curriculum and engaging instruction. Then they ask what it will take to modify that instruction so that each learner comes away with understandings and skills that offer guidance to the next phase of learning. Essentially, teachers in differentiated classrooms accept, embrace, and plan for the fact that learners bring many commonalities to school, but that learners also bring the essential differences that make them individuals. Teachers can allow for this reality in many ways to make classrooms a good fit for each individual.” P. 2

Elements of Differentiation

1. The teacher focuses on the essential
   a. Clarity of concepts, principles, and skills; 
   b. “Clarity also ensures that teacher, learners, assessment, curriculum, and instruction are liked tightly...”
2. The teacher attends to student differences
   a. “…the teacher unconditionally accepts students as they are, and she
      expects them to become all they can be.”

3. Assessment and instruction are inseparable
   a. “…assessment is ongoing and diagnostic. Its goal is to provide
      teachers day-to-day data on students’ readiness for particular ideas
      and skills, their interests, and their learning profiles. These teachers
      don’t see assessment as something that comes at the end of a unit to
      find out what students learned; rather, assessment is today’s means of
      understanding how to modify tomorrow’s instruction….At benchmark
      points in learning, such as the end of a chapter or unit, teachers in
      differentiated classrooms use assessment to formally record student
      growth. Even then, however, they seek varied means of assessment so
      that all students can fully display their skills and understandings.
      Assessment always has more to do with helping students grow than
      with cataloging their mistakes.”

4. The teacher modifies content, process, and products
   a. “Teachers may adapt one or more of the curricular elements (content,
      process, products) based on one or more of the student
      characteristics (readiness, interest, learning profile) at any point in a
      lesson or unit. However, you need to differentiate all elements in all
      possible ways. Effective differentiated classrooms include many times
      in which whole-class, nondifferentiated fare is the order of the day.
      Modify a curricular element only when (1) you see a student need and
      (2) you are convinced that modification increases the likelihood that
      the learner will understand important ideas and use important skills
      more thoroughly as a result.”

5. All students participate in respectful work
   a. “The teacher…understands that she does not show respect for
      students by ignoring their learning differences. She continually tries
      to understand what individual students need to learn more
      effectively… She shows respect for learners by honoring both their
      commonalities and difference, not by treating them alike.”
   b. “A teacher in a differentiated classroom embraces at least the
      following four beliefs
      i. Respect the readiness level of each student.
      ii. Expect all students to grow, and support their continual
          growth.
      iii. Offer all students the opportunity to explore essential
          understandings and skills at degrees of difficulty that escalate
          consistently as they develop their understanding and skill.
      iv. Offer all students tasks that look – and are – equally
          interesting, equally important, and equally engaging.”

6. The teacher and students collaborate in learning
   a. “Teachers are the chief architects of learning, but students should
      assist with the design and building…. Together, teachers and students
plan, set goals, monitor progress, analyze successes and failures, and seek to multiply the successes and learn from the failures. Some decisions apply to the class as a whole. Others are specific to an individual.”

7. The teacher balances group and individual norms
   a. “In many classrooms, a student is an “unsuccessful” 5th grader if her falls short of 5th grade “standards.” That the student grew more that anyone in the room counts for little if he still lags behind grade-level expectations. Similarly, a child is expected to remain in 5th grade even though she achieved those standards two years ago. About that student we often say, “She’s fine on her own. She’s already doing well.”... Teachers in a differentiated classroom understand group norms. They also understand individual norms. When a student struggles as a learner, the teacher has two goals. One is to accelerate the student’s skills and understanding as rapidly as possible for that learner, still ensuring genuine understanding and meaningful application of skills. The second is to ensure that the student and parents are aware of the learner’s individual goals and growth and the student’s relative standing in the class. The same is true when a learner has advanced beyond grade-level expectations... A great coach never achieves greatness for himself or his team by working to make all of his players alike...”

8. The teacher and student work together flexibly
   a. Flexible/ varied pacing, groupings (whole, small group, individual), materials, interest, assignments...” p. 9-13

“Despite compelling new educational knowledge, classrooms have changed little over the last 100 years. We still assume that a child of a given age is enough like all other children of the same age that he or she should traverse the same curriculum in the same fashion with all other students of that age. Further, schools act as though all children should finish classroom tasks as near to the same moment as possible. A school year should be the same length for all learners. To this end, schools generally adopt a single textbook, give students a single test at the end of the chapter, and another test at the end of designated marking periods. Teachers use the same grading system for all children of a given age and grade, whatever their starting point at the beginning of the year... we need to begin our investigation of how to differentiate instruction for a diverse student population with some important assumptions
   o Students differ in experience, readiness, interest, intelligences, language, culture, gender, and mode of learning. ...
   o To maximize the potential in each learner, educators need to meet each child at his or her starting point and ensure substantial growth during each school term.
   o Classrooms that ignore student differences are unlikely to maximize potential in any student who differs significantly from the “norm.”
This is an issue even in “homogeneous” classrooms where student variance is inevitable great.
- To ensure maximum student growth, teachers need to make modifications for students rather than assume students must modify themselves to fit the curriculum. In fact, children do not know how to differentiate their own curriculum successfully....
- Classrooms grounded in best-practice education, and modified to be responsive to student differences, benefit virtually all students.”  

p. 22-24

“The content in a healthy classroom is rooted in these realities. Thus, in a healthy classroom, what is taught and learned
- is relevant to students; it seems personal, familiar, connected to the world they know;
- helps students understand themselves and their lives more fully now, and will continue to do so as they grow up;
- is authentic, offering “real” history or math or art, not just exercises about the subject;
- can be used immediately for something that matters to the students; and,
- makes students more powerful in the present as well as in the future....
When subject matter is dynamic, intellectually intriguing, and personal – when it bestows power to the learner – the “details” also become more important and memorable.”  P. 30-31

“If a teacher isn't clear about what all students should understand and be able to do when the learning experience ends, he or she lacks the vital organizer around which to develop a powerful lesson.”  P. 37

“During planning, a teacher should generate specific lists of what students should know (facts), understand (concepts and principles), and be able to do (skills) by the time the unit ends. Then the teacher should create a core of engaging activities that offer varied opportunities for learning the essentials she has outlined. These activities should lead a student to understand or make sense of key concepts and principles by using key skills.”  P. 40

“An activity is likely to be effective if it
- has a clearly defined instructional purpose,
- focuses students squarely on one key understanding,
- causes students to use a key skill to work with key ideas,
- ensures that students will have to understand (not just repeat) the idea,
- helps students relate new understandings and skills to previous ones, and
- matches the student level of readiness.”  P.43

“ A culminating product might take the form of a demonstration or exhibition. Students could design a solution to a complex problem or undertake a major
research and writing. A culminating product could be a test, or it could be a visual display, such as a narrative photo essay.

An effective assignment for a culminating product will:

- Clearly lay out what students should demonstrate, transfer, or apply to show what they understand and can do as a result of the study.
- Provide one or more modes of expression.
- Lay out clear, precise expectations for high quality content (information, ideas, concepts, research sources); steps and behaviors of developing the product (planning, effective use of time, goal setting, originality, insight, editing); and the nature of the product itself (size, audience, construction, durability, format, delivery, mechanical accuracy).
- Provide support and scaffolding for high quality student success. (For example, provide opportunities to brainstorm ideas, delineate rubrics, and establish time lines. Conduct in-class workshops on use of research materials, or provide opportunities for peer critiques and peer editing.)
- Provide for variations in student readiness, interest, and learning profile.”  

Carol Ann Tomlinson, The Differentiated Classroom: Responding to the Needs of All Learners, ASCD, 1999

“Many teachers feel that there is little point talking about a school's purpose because they see their individual purpose as getting through the mandated curriculum. But to map is not the territory. Curriculum documents are typically lists of content objectives, means to the end of achieving educational purposes, not the purposes themselves.... Inevitably, there are significant differences between the curriculum as it appears on the page and the curriculum we teach. Even if we intend to address every curriculum objective, we give more emphasis to some than others. The objectives we emphasize and the manner in which we teach those objectives reveal the educational purposes we value.”  

“...there's a problem when attention is devoted exclusively to what can be seen. The observable behaviours by which we judge an individual's competence are just the tip of the iceberg. Underneath these behaviours like all kids of things – attitudes, beliefs, experiences, interests, learning preferences, knowledge, skills. These are often unseen and difficult to measure; they can also be even harder to influence.”  

“According to researchers, if students are to develop academic competence and to be engaged in schoolwork, they need

- a positive, committed connection to an adult who has high expectations and provides appropriate support, feedback, and recognition
- understanding of a task’s purpose and relevance to their lives
• challenging work
• autonomy, where possible, in how the work is to be completed 
• confidence that they can be successful.” P. 46

“Disengaged and actively disengaged students often don’t realize that there is a relationship between effort and success. By the time they are adolescents, many disengaged students have had repeated experiences of academic struggle and failure. They protect themselves from more of the same by refusing to make an effort. These adolescents don’t believe anything they do will make any difference to their success, so they go looking elsewhere to achieve their need for competence...

One road is the belief that there is nothing we can do. Some proponents of this road believe that adolescents need to take responsibility for their own learning, and some students will need to experience the “school of hard knocks” before they will make a serious effort. Others believe that years of failure are either impossible to overcome or are a sign that these students are not capable of success. The other road is the belief that self-esteem and confidence need to be enhanced before a student can learn. Proponents of this road believe that adolescents need large doses of success, even if that success comes from lowered expectations or an exclusive focus on building a relationship with the student, independent of academics.” P. 59

Ways to connect Effort and Success
• Guarantee success by asking for small things first. Notice and praise tiny actions that are steps in the right direction.
• Build on incorrect or partially correct answers. Stay with the student who provided the answer, identifying what is right about it or the helpful strategies the student used.
• Allow students to complete activities in a way that works for them. This may ultimately involve choice, but until your students understand who they are as learners, you will likely need to make process decisions for them, based on your understanding of their learning strengths.
• Provide timely feedback. Getting to a student before he or she has given up is critical, as is identifying something positive in the work before requiring improvement.
• Short-term goals make clear the relationship between the effort and success. Recognizing this relationship has been shown to have more impact on goal attainment than does the teaching of time management techniques (Van Overwalle & De Metsenaere, 1990)
• Improvement is a clear sign of effort, but it is not an option if students don’t have opportunities to revise or redo their work, or retake a test. Admittedly, some students use redo opportunities to avoid making efforts on their first attempt, but this problem can be minimized by specifying what needs to be improved and how long a student has to make the improvements.
• Model appropriate self-talk for students. For example, if a student claims he is too stupid to solve a math problem, counteract this learned pessimism by talking your way through the problem, demonstrating that setbacks are temporary and failure is overcome by perseverance. Guide students to see that sweeping generalizations about their abilities are always inaccurate.

• Tell students personal stories about times when you succeeded at a task or achieved a dream because you persisted.” P. 60

“One study found that even if a task was boring or tedious, identifying its relevance resulted in increased student engagement (Assor, Kaplan, & Roth, 2002). Relevance requires both connection and importance. Connection is established when new learning is built upon something already known. New learning, according to brain researchers, must activate a learner’s existing neural networks.

The more relevance or connection, the greater the meaning. Research studies show that personally relevant material more readily transfers from short- to long-term memory (Poldrack et al., 2001) than do facts and skills learned in isolation.

*Importance* refers to the work that students see as having either immediate value or leading to something of value in the longer term...” p. 62

“Making connections to a student’s interests builds new learning on prior experiences, which supports achievement and addresses the need for competence, which supports engagement.” P. 64

“**Broaden Your Definition of Intelligence**

• Multiple Intelligences in the Classroom (Visual-Spatial, Bodily-Kinesthetic, Naturalist, Verbal-Linguistic, Musical-Rhythmic, Logical-Mathematical, Interpersonal, Intrapersonal, Existential)
  o From time to time, allow students to work in cooperative groups and structure the groups so that various learning preferences are represented in each group.
  o Teach concepts through a variety of entry points that roughly map onto the multiple intelligences...
  o Involve students in mentoring and apprenticeship activities where they are able to see intelligence potentials applied in workplaces.
  o Sometimes, allow student choice in how they demonstrate their understanding. Provide choices that reflect the various intelligence potentials.
  o Use and teach students to develop metaphors and analogies that represent a concept in a variety of ways....

• Triarchic Intelligences in the Classroom (Analytical Intelligence, Creative Intelligence, Practical Intelligence)....
Some of the time, teach analytically, helping students learn to analyze, evaluate, compare and contrast, critique and judge.

Some of the time, teach creatively, helping students learn to create, invent, imagine, discover, explore, and suppose.

Some of the time, teach practically, helping students learn to apply, use, utilize, contextualize, implement, and put into practice.

Some of the time, enable all students to capitalize on their strengths.

Most of the time, enable all students to correct or compensate for their weaknesses.

Make sure your assessments match your teaching, calling upon analytical, creative and practical as well as memory skills.

Value the diverse patterns and abilities in all students.

(Sternberg et al., 2000)" p. 69

“Disengaged and actively disengaged students often don’t realize that there is a relationship between effort and success. By the time they are adolescents, many disengaged students have had repeated experiences of academic struggle and failure. They protect themselves from more of the same by refusing to make an effort. These adolescents don’t believe anything they do will make any difference to their success, so they go looking elsewhere to achieve their need for competence…

One road is the belief that there is nothing we can do. Some proponents of this road believe that adolescents need to take responsibility for their own learning, and some students will need to experience the “school of hard knocks” before they will make a serious effort. Others believe that years of failure are either impossible to overcome or are a sign that these students are not capable of success.

The other road is the belief that self-esteem and confidence need to be enhanced before a student can learn. Proponents of this road believe that adolescents need large doses of success, even if that success comes from lowered expectations or an exclusive focus on building a relationship with the student, independent of academics.” P. 59

“For intellectual engagement to happen, students must be presented with real and achievable challenges that they find both interesting and important.” p. 202


“In addition to varied learning styles and different rates of development, young adolescents’ cultural backgrounds and prior experiences must be taken into account along with the impact of inclusion. Adapting curriculum to challenge and provide continuous progress for each and every student requires significant planning, flexibility, and collaboration among all teachers, counselors, school social workers, parents, and the students themselves.
Both content and methods must be diversified and individualized. As a first step, teachers can offer choices among learning activities, providing challenges for every student to reach and grow according to each individual’s abilities and readiness. Independent study, small group work, special interest enrichment experiences, and apprenticeship are among means of addressing individual needs.” P. 19

“...all teachers should help students see how content and skills learned in school are applicable in their daily lives. Curriculum is integrative when it helps students make sense of their lives and the world around them, and when students are empowered to share in making significant, meaningful decisions about their learning. An integrative curriculum revolves around important questions students ask, rather than around a predetermined body of content. Such curriculum is coherent when knowledge and skills deemed crucial by the adult community, as expressed in academic standards, are applied to student concerns.” P. 21

“Curriculum is relevant when it allows students to pursue answers to questions they have about themselves, the content, and the world... They need to study concepts and learn skills in areas that interest them as well as in those determined by adults... Making curriculum relevant, however, does not mean that topics and material to be studied should be limited to students’ preexisting interests. Relevant curriculum creates new interests, opening doors to new knowledge and opportunities for “stretching” students to higher levels of learning.” P. 22

“Teaching approaches should capitalize on the skills, abilities, and prior knowledge of young adolescents; use multiple intelligences; involve students’ individual learning styles; and recognize the need for regular physical movement... When learning experiences capitalize on students’ cultural, experiential, and personal backgrounds, new concepts build on knowledge students already possess.” P. 22

“In developmentally responsive middle level schools, assessment procedures also reflect the unique characteristics of young adolescents. Assessment should emphasize individual progress rather than comparison with other students and show not rely on extrinsic motivation. The goal is to help students discover their own strengths, weaknesses, interests, and aptitudes...” p. 26

“Educators should recognize students’ efforts and support their developing work ethic, knowing that not all students can reach a uniform standard at the same time. Emphasis should be on what has been accomplished. Descriptive feedback that addresses not only the quality of the current work but how to improve or move to the next step of learning should be provided to each student.” P. 26

NMSA (National Middle School Association), This We Believe: Keys to Educating Young Adolescents
“Ideally, well conceived standards or learning goals are in place to guide local schools and programs in choosing or developing comprehensive, appropriate curriculum. The curriculum framework is a starting place, then teachers can use their expertise to make adaptations as needed to optimize the fit with the children. Further, such curricular guidance gives teachers some direction in providing the materials, learning experiences, and teaching strategies that promote learning goals most effectively, allowing them to focus on instructional decision making without having to generate the entire curriculum themselves. That good teaching requires expert decision making means that teachers need solid professional preparation, as well as ongoing professional development and regular opportunities to work collaboratively.” P. 5/6

“Curriculum provides a framework from which teachers adapt to meet the needs and interests of the children they teach... The curriculum framework is a starting place, then teachers can use their expertise to make adaptations as needed to optimize the fit for the children.” P. 5/6

Core considerations in developmentally appropriate practice:

- What is known about child development and learning – referring to knowledge of age-related characteristics that permits general predictions about what experiences are likely to best promote children’s learning and development.
- What is known about each child as an individual – referring to what practitioners learn about each child that has implications for how best to adapt and be responsive to that individual variation (observations; talking with children and families; assessments re strengths, interests, knowledge, skills...)
- What is known about the social and cultural contexts in which children live – referring to the values, expectations, and behavioral and linguistic conventions that shape children’s lives at home and in their communities that practitioners must strive to understand in order to ensure that learning experiences in the program or school are meaningful, relevant, and respectful for each child and family. P. 9/10

“Development and learning proceed at varying rates from child to child, as well as at uneven rates across different areas of a child’s individual functioning... A child’s age is only a crude index of developmental abilities and interests.” P.11

“Development and learning result from a dynamic and continuous interaction of biological maturation and experience... It is important for early childhood educators to maintain high expectations and employ all their knowledge, ingenuity, and persistence to find ways to help every child succeed.” P. 12
“Always mentally active in seeking to understand the world around them, children learn in a variety of ways; a wide range of teaching strategies and interactions are effective in supporting all these kinds of learning.”

Development and learning advance when children are challenged to achieve at a level just beyond their current mastery, and also when they have many opportunities to practice newly acquired skills.... children need to be successful in new tasks a significant proportion of time in order for their motivation and persistence to be maintained. Confronted by repeated failure, most children will simply stop trying. Repeated opportunities to practice and consolidate new skills and concepts is also essential ... To set challenging, achievable goals for children and to provide the right amount and type of scaffolding require knowledge of child development and learning, including familiarity with the paths and sequences that children are known to follow in acquiring specific skills, concepts, and abilities. This general knowledge, along with what the teachers learns from close observation and probing of the individual child’s thinking, is critical to matching curriculum and teaching experiences to that child’s emerging competencies so as to be challenging but not frustrating.” P.15

“Teachers use the curriculum and their knowledge of children’s interests in planning relevant, engaging learning experiences...” p. 20

“Research indicates that the most powerful influences on whether and what children learn occur in the teacher’s interactions with them, in the real-time decisions the teacher makes throughout the day.... It is the teacher’s classroom plans and organization, sensitivity and responsiveness to all the children, and moment-to-moment interactions with them that have the greatest impact on children’s development and learning. The way teachers design learning experiences, how they engage children and respond to them, how they adapt their teaching and interactions to children’s background, the feedback they give – these matter greatly in children’s learning. And none can be fully determined in advance and laid out in a curriculum product or set of lesson plans that every teacher is to follow without deviation. Teachers will always have moment-to-moment decisions to make.

To make these decisions with well-grounded intentionality, teachers need to have knowledge about child development and learning in general, about the individual children in their classrooms, and about the sequence in which a domain’s specific concepts and skills are learned. Teachers also need to have at the ready a well-developed repertoire of teaching strategies to employ for different purposes...” p. 8

“Learning tasks must be perceived as achievable, even if difficult ... Given the developmental diversity present in every middle grades classroom, gearing curriculum to each student’s level of understanding is a complex task. In addition to varied learning styles and different rates of development, young adolescents’
cultural backgrounds and prior experiences must be taken into account along with the impact of inclusion. Adapting curriculum to challenge and provide continuous progress for each and every student requires significant planning, flexibility, and collaboration among all teachers, counselors, school social workers, parents, and the students themselves. Both content and methods must be diversified and individualized. As a first step, teachers can offer choices among learning activities, providing challenges for every student to reach and grow according to each individual's abilities and readiness. Independent study, small group work, special interest enrichment experiences, and apprenticeships are among means of addressing individual needs.” p. 18 -19

**NAEYC (National Association for the Education of Young Children),** Position Statement: Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8, 2009

“Students, particularly those in secondary schools, report they are not engaged intellectually in their learning, do not find their required learning relevant and, in many cases, are simply jumping through the hoops of schooling.” P. 4

“...a quality learning environment
- makes learning central, encourages engagement, and develops self-regulated learners;
- involves learning that is social and often collaborative;
- is highly attuned to learners’ motivations and the key role of emotions;
- is acutely sensitive to the individual differences among the learners, including their prior knowledge;
- is demanding for each learner but without excessive overload;
- promotes horizontal connectedness across activities and subjects, with the community, and both in and out of school.

P. 5 based on research informing The Nature of Learning

“...leaders must be deeply grounded in learning theory, have a good understanding of a range of learning models, and need to have confidence in leading what Vivianne Robinson (2009) describes as ‘open to learning conversations’. Leaders must know how to serve as ‘intellectual companions’ to educators at varying stages of their careers and at various developmental levels.” P. 7

“The closer the evidence is to the classroom and to individual learners, the greater the validity of the evidence is for teachers.” P. 10

**Judy Halbert and Linda Kaser,** Inquiring learning environments: New mindsets required, 2012
“Learning success benefits from teachers who are responsive to learner’s particular needs for numerous reasons:

- **Attending to teacher-student relationships contributes to student energy for learning.** Beyond the potent benefits of human beings learning to understand and appreciate one another, positive teacher-student relationships are a segue to student motivation to learn. A learner’s conviction that he or she is valued by a teacher becomes a potent invitation to take the risk implicit in the learning process.

- **Attending to the learning environment builds a context for learning.** When students feel affirmation, affiliation, a sense of contribution, growing autonomy, accomplishment, and shared responsibility for the welfare of the group, the “climate” for learning is good. Such a climate does not guarantee student success, but it opens the way and provides a setting in which consistent partnerships help students navigate success and failure as a part of human growth.

- **Attending to students’ backgrounds and needs builds bridges that connect learners and important content.** Such connections contribute to relevance for students – an important attribute of student engagement.

- **Attending to student readiness allows for academic growth.** Our learning expands when the work we do is a little too difficult for us and when a support system exists to get us past the difficulty. Because students’ readiness to learn particular ideas and skills at particular times will inevitably vary, a teacher must make appropriate readiness adjustments to enable consistent academic growth for each learner.

- **Attending to student interests enlists student motivation.** Learners of all ages are drawn to and willing to invest in that which interests them. Interest ignites motivation to learn. A teacher who makes consistent efforts to pique a student’s curiosity, discover students’ particular and shared interests, and show student how important ideas and skills connect to their interests is likely to find students who are far more eager and willing to learn than they would if they found content and skill to be remote from their interests.

- **Attending to student learning profiles enables efficiency of learning.** Enabling students to work in a preferred learning mode simply “unencumbers” the learning process. When learning challenges are already substantial, it is sensible to allow students to work in ways that best suit them.” P. 18-19

“Readiness has to do with a student’s proximity to or proficiency with particular knowledge, understanding, and skill. Readiness affects a student’s growth as a learner. The theoretical line of logic supports differentiation as follows:

- Learners must work at an appropriate degree of challenge or degree of difficulty with what they seek to learn.

- When tasks are too difficult for students, they become frustrated and do not learn effectively or efficiently.
To learn, tasks for a student must be moderately challenging for that particular student.

- Learning happens when a task is a little too difficult for a learner and scaffolding is provided to help the student span the difficulty.
- Learning occurs through a progression of appropriately scaffolded tasks at degrees of difficulty just beyond a particular student’s reach.
- Motivation to learn is decreased when tasks are consistently too difficult or too easy for a learner (Csikszentmihalyi, Rathunde & Whalen, 1993; Howard, 1994; Jensen, 1998; National Research Council, 2000; Vygotsky, 1962, 1978)

- Students learn more effectively when teachers diagnose a student’s skill level and prescribe appropriate tasks (Fisher et al., 1980).
- Students learn more effectively when a task structure matches a student’s level of development (Hunt, 1971).
- In classrooms where individual students worked at a high success rate, they felt better about themselves and the subjects they were studying and also learned more (Fisher et al., 1980).
- Students in multigrade classrooms, where differentiation is both an intent and a necessity, outperform students in a single-grade classroom on 75 percent of measures used (Miller, 1990). Other studies show benefits to students in multiage classroom compared to single-grade classrooms in terms of study habits, social interaction, cooperation, and attitude toward school. They also scored as well as or better than single-grade counterparts on achievement tests (Gayfer, 1991)
- In a five-year longitudinal study of adolescents, students whose skills were underchallenged by tasks demonstrated low involvement in learning activities and lessening of concentration. Students whose skills were inadequate for the level of challenge required by tasks, demonstrated both low achievement and a diminished sense of self-worth. The researchers concluded that teachers who were effective in developing student talent created tasks commensurate with student skills (Csikszentmihalyi et al., 1991).

“Among the theoretical underpinnings of differentiation in response to student interest are these principles and the theorists who propose them:

- When an individual’s interest is tapped, learning is more likely to be rewarding and the student more likely to become an autonomous learner (Bruner, 1961).
- By helping students discover and pursue interests, we can maximize their engagement with learning, their productivity, and their individual talents (Amabile, 1983; Collins & Amabile, 1999).
- When students feel a sense of “flow” with their work, they are more likely to work hard, to work in a sustained fashion, and to want to develop the skills necessary to complete the work (Csikszentmihalyi, 1990).” P. 179 – 181
• The freedom to choose what to work on, questions to pursue, and topics for study lays the groundwork for creative achievement (Collins & Amabile, 1999).

• Student motivation can be maintained over time if teachers engage students in discussing the pleasure of their work in environments where learners feel free to exchange ideas and share interests (Hennessey & Zbikowski, 1993).

• Student interest is key to ongoing student motivation to pursue tasks at increasing levels of complexity, and satisfaction with earlier tasks is often important in keeping students engaged with work that is temporarily not interesting to them (Csikszentmihalyi, 1990).

• When students are interested in what they study, there are positive influences on learning in both the short and long term (Hebert, 1993; Renninger, 1990).” P. 181-182

“Learning profile refers to preferred modes of learning or ways in which students will best process what they need to learn. Learning profile is shaped by a person's gender, culture, learning style, and intelligence preference. These shaping factors often overlap. Learning profile influences efficiency of learning. Among the theoretical underpinnings of differentiation in response to student learning profile are these principles and the theorists who propose them:...

• Students’ own neurological patterns – such as attention control, memory systems, language systems, higher-order thinking systems, and social thinking systems – affect how they learn. When a classroom is a mismatch for a student’s needs, that student is likely to struggle in school (Levine, 2002).

• Intelligence manifests itself in a variety of spheres. Even though these manifestations are fluid rather than fixed, there is benefit to addressing a learner’s intelligence preferences in instruction (Gardner, 1993; Sternberg, 1985).

• A person’s gender can influence the way that person sees and interacts with the world – including the classroom. Although generalizing to a particular gender is not appropriate, there are like some female-preferred learning patterns and some male-preferred learning patterns (Gilligan, 1982; Gurian, 2001; Tannen, 1990).

• A person’s culture shapes his or her perspectives, points of view, frames of reference, modes of communication, sense of identity, and cognitive style. Although any culture demonstrates great variance, and it is not appropriate to generalize to a culture, classrooms that favor cultural patterns of one group and are inhospitable to those of other groups are likely to have negative effects on the learning of students from nonfavored groups (Banks, 1993, 1994; Delpit, 1995; Lasley & Matczynski, 1997). Particular classrooms may also be more beneficial to students from some economic classes that from others (Garcia, 1995). It is important for classrooms to provide a range of materials, processes, and procedures for learning so that students from
many backgrounds find them comfortable and effective places to learn (Educational Research Service, 2003)....” P. 182-183

Carol Ann Tomlinson and Jay McTighe, Integrating Differentiated Instruction and Understanding by Design, 2006
Learning is an active process.

“...the benefits for some students are so immediately apparent that neuroscientists such as Joaquin Fuster (2003) are proposing new theories of learning that make action central to all learning except for simple memorization. In Fuster’s theory, education should be focused on building rich neuronal connections in the brain. He argues that the richest connections come from experiences that engage both mind and body in the context of an enriched learning environment where students have multiple exposures to the same information over an extended period of time.” P. 109

“Giving students more time on computers or buying interactive whiteboards for every classroom are actions that, in themselves, will not result in sustained intellectual engagement... Technology, in my view, is a suite of tremendously useful tools that can help us engage students in learning, but these tools are meaningless and even detrimental to that learning without a predetermined worthwhile purpose.” P. 161

“Research evidence suggests that technology is indeed engaging, but there is uncertainty about just what aspects of technology make it so. Some possibilities include the following:

- Technology promotes active rather than passive learning. There’s a "hands-on" feel to it, and adolescents regularly report that they prefer hands-on activities.
- Students are often collaborating with others when they use technology.
- Technology provides greater opportunity for creativity and experimentation.
- Use of technology often involves meaningful and authentic challenge. Students may solve a problem or design or create a product. Frequently, the product gains additional meaning and relevance through being shared with an audience, often one from beyond the classroom.” P. 166-167

“As for impact on learning, study after study has demonstrated that technology enhances student achievement, as long as the chosen technology is appropriate to the purpose of the learning and the technology is used at an appropriate point in the learning. For example, using computers in simulation activities improved math test scores of students in Grades 4 and 8, but using computers to drill math skills for the same test had a negative impact on achievement (Wenglinksy, 1998). The thinking is that students can learn both concepts and skills while solving the problems in a simulation, but if they over-practice skills in a drill situation without a focus on understanding, they will have a difficult time applying those skills to new situations on a test.” P. 167-168
“Tech aficionados point out that computers and various other technologies (such as digital still and video cameras, MP3 players, and cell phones) engage students and affect their achievement by doing the following:

- personalizing instruction and providing immediate feedback
- increasing relevance – for example, through video-based problems or connecting students with experts
- involving students in learning-by-doing through use of modeling software and simulations
- addressing a variety of learning preferences
- helping students construct new knowledge
- providing visual representations of challenging concepts
- fostering collaboration among students
- strengthening connections between school and home – for example, through homework support sites and online school calendars.”  P. 168

“Researchers from an early study in the Apple Classrooms of Tomorrow-Today project (Sandholtz, Ringstaff & Dwyer, 1994) found that in classrooms where teachers were willing to relinquish the role of “dispenser of knowledge,” many moved from curriculum-centred to student-centred instruction, with a corresponding student change from passive to active learning. These researchers came to the following conclusion:

_We believe that fundamental instructional changes such as these will have an impact on student engagement far more lasting than that of any technological tool in and of itself._”

“Learning is a social phenomenon where students use talk to engage with ideas, create meaning, and accomplish tasks. Developing students’ skills of analysis, synthesis, and evaluation often happens through talk – we ask essential questions and model for students how to use those questions to generate hypotheses, reason logically, combine ideas, and appraise the quality of our own and other people’s arguments.”  P. 232

**Karen Hume, Tuned Out : Engaging the 21st Century Learner, Pearson, 2011**

“There is also concern that schools are curtailing valuable experiences such as problem solving, rich play, collaboration with peers, opportunities for emotional and social development, outdoor/physical activity, and the arts. In the high-pressure classroom, children are less likely to develop a love of learning and a sense of their own competence and ability to make choices and they may miss much of the joy and expansive learning of childhood.”  P. 4/5

“All the domains of development and learning – physical, social and emotional, and cognitive – are important, and they are closely interrelated. Children’s development
and learning in one domain influence and are influenced by what takes place in other domains.
For example, when children begin to crawl or walk, they gain new possibilities for exploring the world, and their mobility affects both their cognitive development and sense of autonomy. Likewise, children’s language development influences their ability to participate in social interaction with adults and other children; such interactions, in turn, support their further language development. A growing body of work demonstrates the relationship between emotional and social factors and children’s academic competence...

Always mentally active in seeking to understand the world around them, children learn in a variety of ways; a wide range of teaching strategies and interactions are effective in supporting all these kinds of learning. – constructivist approach; “Children take all this input and work out their own understandings and hypotheses about the world. They try these out through interactions with adults and other children, physical manipulation, play, and their own thought processes – observing what happens, reflecting on their findings, imagining possibilities, asking questions, and formulating answers. When children make knowledge their own in these ways, their understanding is deeper and they can better transfer and apply their learning in new contexts.

“Play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence. “Research shows the links between play and foundational capacities such as memory, self-regulation, oral language abilities, social skills, and success in school....Play is influential in developing self-regulation, as children are highly motivated to stick to the roles and rules of the play, and thus grow in the ability to inhibit their impulses, act in coordination with others, and make plans. High-level dramatic play produces documented cognitive, social, and emotional benefits. However, with children spending more time in adult-directed activities and media use, forms of child play characterized by imagination and rich social interactions seem to be declining. Active scaffolding of imaginative play is needed in early childhood settings if children are to develop the sustained, mature dramatic play that contributes significantly to their self-regulation and other cognitive, linguistic, social and emotional benefits....**Rather than detracting from academic learning, play appears to support the abilities that underlie such learning and thus to support school success.”** P.14/15

“When children have missed some learning opportunities necessary for school success, the teacher provides extended, enriched, intensive learning experiences – without added pressure, by being highly intentional...
• Recognizing the self-regulatory, linguistic, cognitive, and social benefits that high-quality play affords, teachers do not reduce play opportunities that these children critically need. Instead, teacher scaffold and model aspects of rich, mature play.” P. 19
Teachers plan the environment, schedule, and daily activities to promote each child’s learning and development.

- They arrange firsthand, meaningful experiences that are intellectually and creatively stimulating, invite exploration and investigation, and engage children’s active, sustained involvement. They do this by providing a rich variety of materials, challenges, and ideas that are worthy of children’s attention.
- They present children with opportunities for meaningful choices.
- They organize extended blocks of time for children to engage in sustained play, investigation, exploration, and interaction with peers and adults.
- Teachers plan experiences that integrate children’s learning within and across the domains and disciplines.
- They provide experiences, materials, and interactions to enable children to engage in play that allows them to stretch their boundaries to the fullest in their imagination, language, interaction, and self-regulation as well as to practice newly acquired skills.

Sound assessment...

- Employs methods of assessment that are appropriate to the development and experiences of young children; children are allowed to demonstrate their competence in different ways... teacher confers, collects work samples, and observes performance on authentic activities.

NAEYC (National Association for the Education of Young Children), Position Statement: Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8, 2009

“Students and teachers are engaged in active, purposeful learning (Active Learning)
Successful middle grades schools are characterized by the active engagement of students and teachers. It could not be otherwise, for everything that is known about the nature of young adolescents and the principles of learning points to the reality that the most successful learning strategies are ones that involve each student personally. As they develop the ability to hypothesize, organize information into useful and meaningful constructs, and grasp long-term cause and effect relationships, students demonstrate they are ready for and should play a major role in their own education. Successful middle grades practices purposefully empower young adolescents to assume this role, one that includes self-advocacy. Through planned opportunities for students to express their needs and preferences, middle grades educators open new pathways to facilitate differentiated instruction and authentic assessment. These, in turn, enhance and accelerate learning.” P. 16
“An effective middle grades curriculum is distinguished by learning experiences that address societal expectations while appealing to young adolescents and offering them opportunities to pose and answer questions that are important to them. In other words, an effective middle grades curriculum must be challenging, exploratory, integrative, and relevant, from both the student’s and the teacher’s perspective.” P. 17

“The middle school is the finding place; for young adolescents, by nature, are adventuresome, curious explorers. Therefore, the general approach for the entire curriculum at this level should be exploratory... They (Students) deserve opportunities to ascertain their special interests and aptitudes, to engage in activities that will broaden their views of the world and of themselves. They need, for instance, the chance to conduct science experiments, though they may never work in a lab, to be a member of a musical group, though never become a professional musician, to write in multiple formats, though never to publish professionally, to have a part in a play, though never to become a paid actor, to play on a team, though never to become a career athlete, or to create visual images through drawing and painting, though never to become an artist.” P. 20

“...all teachers should help students see how content and skills learned in school are applicable in their daily lives.” p. 21

“An integrative curriculum revolves around important questions students ask, rather than around a predetermined body of content. Such curriculum is coherent when knowledge and skills deemed crucial by the adult community, as expressed in academic standards, are applied to student concerns... Whereas prescribed curricula often focuses on finding answers to questions young adolescents never ask, critical thinking, decision making, and creativity are enhanced when students examine problems they have identified and take steps to solve them. In such cases, they produce or construct knowledge rather than simply being consumers of information given.” P. 21

“Since young adolescents learn best through engagement and interaction, learning strategies should involve students in dialogue with teachers and with one another about what to study and how best to study topics selected. While some direct, teacher-centered instruction is in order, varied approaches are needed including experiments, demonstrations, surveys and opinion polls, simulations, inquiry-based and group projects, community-based services, and independent study. Individual differences are accommodated through abundant opportunities for student choice within classes and in co-curricular programs. Experiences are provided that appeal to students’ special talents or interests, whether they are intellectual, athletic, or artistic.” P. 23

**NMSA (National Middle School Association), This We Believe: Keys to Educating Young Adolescents**
“...two elements are required for a great class: engagement and understanding. Engagement happens when a lesson captures students’ imagination, snares their curiosity, ignites their opinions, or taps into their souls. Engagement is the magnet that attracts learners’ meandering attention and holds it so that enduring learning can occur.

Understanding means much more than recalling. It means the learner has “wrapped around” an important idea, has incorporated it accurately into his or her inventory of how things work. The learner owns the idea.

A student who understands something can

- explain it clearly, giving examples;
- use it;
- compare and contrast it with other concepts;
- relate it to other instances in the subject studies, other subjects, and personal life experiences;
- transfer it to unfamiliar settings;
- discover the concept embedded within a novel problem;
- combine it appropriately with other understandings;
- pose new problems that exemplify or embody the concept;
- create analogies, models, metaphors, symbols, or pictures of the concept;
- pose and answer questions and hypotheses that lead to new knowledge and further inquiries;
- generalize from specifics to form a concept;

use the knowledge to appropriate assess his or her own performance, or that of someone else (adapted from Barell, 1995).”  P. 38

**Carol Ann Tomlinson**, The Differentiated Classroom: Responding to the Needs of All Learners, ASCD, 1999

“Growth in the adult learning process needs to be acknowledged and celebrated. When both adults and young people are engaged in improving their learning, the school has genuinely become a centre of inquiry.”  P. 13

“In schools where there are regular times early in the day for teacher collaboration, the process of examining strengths and weaknesses in the new approach is much easier... **Action and conversation are key... dialogue is vital.**”  P. 12

A growing body of research has shown the following:

- Students learn more deeply when they can apply classroom-gathered knowledge to real-world problems, and when they take part in projects that required sustained engagement and collaboration.
- Active-learning practices have a more significant impact on student performance than any other variable, including student background and prior achievement.
- Students are most successful when they are taught how to learn as well as what to learn.

Positive learning behaviours and attitudes lead to greater student independence, success and lifelong learning

“Teachers are the chief architects of learning, but students should assist with the design and building.... Together, teachers and students plan, set goals, monitor progress, analyze successes and failures, and seek to multiply the successes and learn from the failures. Some decisions apply to the class as a whole. Others are specific to an individual.”

Carol Ann Tomlinson, The Differentiated Classroom: Responding to the Needs of All Learners, ASCD, 1999

Positive Alternatives to Rewards

- “Celebrate. Everything from team cheers to pizza lunches work when they are unexpected and happen after learning.
- Praise students for their efforts and the strategies they use, not their intelligence.
- Teach students to set goals, identify action steps, and regularly assess their progress. Accomplishing even a few small action steps can build intrinsic motivation to continue.
- Provide an appropriate challenge and stand back. A natural reward for learning is the endorphin high that comes from accomplishing something meaningful.
- Share positive news with parents. Parents are a primary source of a student’s sense of belonging, even though adolescents may deny it. To make contact easy, consider sending a brief postcard or an email addressed to both student and parents.
- Teach students that self-talk is the way we encourage or discourage ourselves when we work. Use think-alouds and metacognition questions to show students how to talk themselves through day-to-day problems.
- Involve students in self- and peer assessments. Ask them to identify a strength and next step before submitting work to you. Feedback is one of the best sources of intrinsic motivation, no matter who it comes from (Jensen, 1998). For this technique to work, you will need to explicitly teach students how to give helpful feedback. You will also need to provide clear success criteria through detailed rubrics and (if possible) work samples, so students can be accurate in their feedback.”  P. 53

“The key to a self-directed and self-modifying learner is the ability to set meaningful goals... and create the work plans that will help them fulfill (goal) requirements.”

Arthur Costa and Benna Kallick
Sometimes Let Them Choose
“...one of the easiest ways to engage the hypothalamus of anyone is to take away their perception of control. When people are backed into a corner and feel that they are powerless or have no control whatsoever over their situation, the hypothalamus becomes engaged. Once that happens we see destructive, angry and aggressive behaviours.” (Kathie Nunley, 2003. P.51)

“Choice addresses our need for autonomy. It is important in the classroom for different aspects of teaching and learning:

- **differentiated instruction** – It allows students to sometimes choose to work in an area of personal strength.
- **assessment** – Providing choice of assessment tasks will give you a more accurate picture of student understanding.
- **behaviours** – Choice helps students learn to make their own decisions and not follow the crowd.
- **preparation for 21st century realities** – When presented with an increasingly wide range of choices, consumers need to understand how to make good decisions. Initiative and self-direction, two important 21st century skills, develop through choice.” P. 70

“Choice is certainly beneficial for student engagement, but it doesn’t always result in meaningful learning that has an impact on student achievement. Effective choices meet the following criteria:

- All choices address the same learning outcome.
- All choices are engaging and respectful.
- All choices take approximately the same length of time to complete.” P. 74


“Developmentally responsive middle grades educators take the concept of hands-on activities further by promoting what might be termed “hands-joined” activities, ones that teachers and students work together in developing. Such activities foster student ownership and lead to levels of understanding unlikely to be achieved when students are simply completing teacher-made assignments.” P. 16

“Because of young adolescents’ drive toward independence, they should be provided with opportunities to contribute to and take ownership of their own education. Consonant with their varying capacities to handle responsibility, students must be nurtured in making choices and decisions about curricular goals, content, and activities, as well as the means of assessment. Initiative, leadership, and an understanding of the democratic way of life are fostered by opportunities to participate in team governance in various aspects of school life.” P. 19
“Teachers should specify in advance the criteria for assessment, usually in the form of a rubric that defines levels of quality for assessing performance, demonstrations, projects, or similar work; and examples of quality work should be readily available. Because young adolescents are capable of being active participants in both assessing and judging their accomplishments, they should be involved in designing these rubrics. This promotes students’ having an integral understanding of the work and internalizing levels of quality, expressed in terminology that is understandable and defining.

In addition to content knowledge and skills typically assessed through paper and pencil tests, methods of assessing students’ growth must address the many other aspects of a student’s development including critical thinking, independence, responsibility, and those other desired personal attributes and dispositions that have lifelong influences. This requires a variety of assessment strategies including journals, electronic portfolios, demonstrations, descriptive teacher feedback, teacher-designed tests, and audio or video evidences of learning…” p. 25 -26

**NMSA (National Middle School Association), This We Believe: Keys to Educating Young Adolescents**

“... studies have linked emotional competence to both enhanced cognitive performance and academic achievement. A number of factors in the emotional and social domain, such as independence, responsibility, self-regulation, and cooperation, predict how well children make the transition to school and how they fare in the early grades.... Self-regulation in young children predicts their later functioning in areas such as problem-solving, planning, focused attention, and metacognition, and thus contributes to their success as learners.” P. 7

“They (teachers) provide experiences, materials, and interactions to enable children to engage in play that allows them to stretch their boundaries to the fullest in their imagination, language, interaction, and self-regulation as well as to practice newly acquired skills.” P. 17

“Children’s experiences shape their motivation and approaches to learning such as persistence, initiative, and flexibility; in turn, these dispositions and behaviors affect their learning and development.” P. 15

“Each member of the community respects and is accountable to others – teachers help children develop responsibility and self-regulation; teachers are responsible at all times for all children under their supervision – monitoring, anticipating, preventing, and redirecting behaviors not conducive to learning or disrespectful...; teachers set clear and reasonable limits on children’s behavior and apply those consistently – also help children be accountable for themselves and others; teachers listen to and acknowledge children’s feelings and frustrations; teachers demonstrate high levels of responsibility and self-regulation.”
“Teachers possess an extensive repertoire of skills and strategies ... to promote child’s learning and development including acknowledging, encouraging, modeling, giving specific feedback, demonstrating, adding challenge, giving cues, providing information, giving directions...

- Help develop initiative by encouraging children to choose and plan their own learning activities;
- Stimulate thinking and extend learning by posing problems, asking questions, making comments and suggestions.
- Extend range of interests and scope of thought by presenting novel experiences and introducing stimulating ideas, problems, experiences, or hypotheses.
- Adjust complexity and challenge of activities as children gain competence and understanding.
- Strengthen child’s sense of competence and confidence, motivation to persist, and willingness to take risks by providing experiences for children to be genuinely successful and challenged.
- Enhance conceptual understandings by using various strategies including intensive interview and conversation that encourage children to reflect and “revisit” their experiences.
- Teachers avoid generic praise and instead give specific feedback.”

“When children have missed some learning opportunities necessary for school success, the teacher provides extended, enriched, intensive learning experiences – without added pressure, by being highly intentional...

- “Recognizing the self-regulatory, linguistic, cognitive, and social benefits that high-quality play affords, teachers do not reduce play opportunities that these children critically need. Instead, teacher scaffold and model aspects of rich, mature play.” P. 19

“Play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence. Research shows the links between play and foundational capacities such as memory, self-regulation, oral language abilities, social skills, and success in school... Play is influential in developing self-regulation, as children are highly motivated to stick to the roles and rules of the play, and thus grow in the ability to inhibit their impulses, act in coordination with others, and make plans. High-level dramatic play produces documented cognitive, social, and emotional benefits. However, with children spending more time in adult-directed activities and media use, forms of child play characterized by imagination and rich social interactions seem to be declining. Active scaffolding of imaginative play is needed in early childhood settings if children are to develop the sustained, mature dramatic play that contributes significantly to their self-regulation and other cognitive, linguistic, social and emotional benefits... Rather than detracting from academic learning, play appears to support the abilities that underlie such learning and thus to support school success.” P.14
“... studies have linked emotional competence to both enhanced cognitive performance and academic achievement. A number of factors in the emotional and social domain, such as independence, responsibility, self-regulation, and cooperation, predict how well children make the transition to school and how they fare in the early grades.... Self-regulation in young children predicts their later functioning in areas such as problem-solving, planning, focused attention, and metacognition, and thus contributes to their success as learners.” P. 7 (combine with Shankir and Adele Diamond quotes re: play as a vehicle for self-regulation)

Why is play important?

Medical, brain and educational research informs us that play

- impacts our **positive mental health** and forestalls mental decline – it enlivens us, brings us pleasure and joy, eases our burdens, renews optimism, opens up new possibilities, and affects our personal coping skills
- develops a **sense of belonging** and the **social skills** necessary to build and maintain relationships, understanding and trust of others – learning to give and take, negotiate, demonstrate leadership and empathy, honor the talents of others, read social cues
- develops **self-regulation** necessary for emotion regulation, cognitive control (sustained attention, attention switching, impulse control, dealing with frustrations, distractions, delay…), socially desirable behaviors, empathy and values
- impacts our **brain and body development and health**
  - through play we become smarter – play impacts our brain size, nerve growth, the development of “maps” of complex networks of interconnected neurons; it is responsible for processing emotions, making decisions, cognition (discriminating relevant from irrelevant information, monitoring and organizing thoughts and feelings, planning for the future, attention, language processing…)
  - when playing, the brain releases dopamine which results in greater coordination, nerve net development and alignment – a deterrent to hyperactivity, ADHD...
  - gross-motor movement is important for nerve growth; it provides more oxygen to the brain and muscles which leads to greater coordination, balance, and focus
  - play often facilitates touch – touching the skin sends messages to the brain that stimulate the production of oxytocin and endorphins; early touch promotes bonding, leads to strong immune system, better weight gain, reduced levels of stress hormones, stimulates the production of nerve growth factor which stimulates dendritic growth on neurons
play often leads to laughter which increases the brain’s temperature, which, in turn, protects it from disease organisms
- develops creativity, innovativeness, creative problem solving, curiosity and experimental testing, perseverance, risk taking
- fosters learning, adaptability, flexibility, emotional resilience
- develops competence, a sense of mastery and inner motivation, autonomy, self-confidence – a strong sense of “can do”
- makes us more productive
- leads to lifelong engagement in sports / physical fitness and the arts...

These scientists suggest that children need to do more

- movement play
- hands on object play
- rough and tumble, social play
- imaginative, fantasy, ‘pretend’ play
- storytelling and narrative play resulting from reading and listening to stories
- longer recess play that promotes “pick up games...”
- child-initiated play - making time for students to follow what truly makes them excited and happy, to discover what speaks to them emotionally and feeds their soul, with opportunities to choose for themselves from genuine and appropriate choices in order to discover their “core selves”
- playing with animals
- playful learning with opportunities for thinking outside the box, innovative and creative approaches to learning, helping students to achieve their challenging goals and to feel the satisfaction of success

They also recommend that adults supporting the play and learning of these children need to

- monitor / observe the play without jumping in too soon; look for healthy rough-and-tumble play, good-hearted teasing... vs. ongoing, dominance, exclusion...
- interact in ways that communicate respect for them and their ideas, recognize them for who they are and what they can do, acknowledge and value their decisions with interactions that are thoughtful, nonjudgmental, accepting and genuine

As well, they suggest that children do less:

- organized activities, pushing
- playing with commercial toys
- viewing TV...with preset ideas, characters...

**Play and self-regulation research**
“Students, particularly those in secondary schools, report they are not engaged intellectually in their learning, do not find their required learning relevant and, in many cases, are simply jumping through the hoops of schooling.” P. 4

“An evidence-informed mindset requires understanding the role of formative assessment practices, engagement and meta-cognition in learning.” P. 7-8

include table 2 p. 9


“The most effective learners are metacognitive; that is, they are mindful of how they learn, set personal learning goals, regularly self-assess and adjust their performance, and use productive strategies to assist their learning. Research and experience have shown that metacognitive strategies can be taught, and the benefits to learners can be noteworthy (Bransford, Brown, & Cocking, 2000; Costa & Kallick, 2000; Flavel, 1995). “ p. 79
(examples of reflective questions – p. 79 – 80)

“…if students had opportunities to reflect on the appropriateness of the degree of the task difficulty for them, to name their particular strengths and weaknesses, to think about how their learning preferences work for and against them, and to set personal improvement goals, it is likely that they would have more ownership in both their learning and their classroom where the teacher works to understand and respond to their needs.” P. 80

“Educators who provide regular opportunities for learners to self-assess and reflect often report a change in the culture of the classroom. As one teacher put it, “My students have shifted from asking, ‘What did I get?’ or ‘What are you going to give me?’ to becoming increasingly capable of knowing how they are doing and what they need to do to improve.” P[. 82

“When we truly understand, we… have self-knowledge: show metacognitive awareness;’ perceive the personal style, prejudices, projections, and habits of mind that shape and impede our own understanding; be aware of what we do not understand; reflect on the meaning of learning and experience.” (from The Six Facets of Understanding – p. 67)

“Not only is it important in a differentiated classroom for students to be the teacher’s partner in operating the classroom effectively, but it is also critical for them to develop increasing awareness of their own learning goals and needs, and to become effective in speaking about and playing a role in addressing those needs...
Surely a part of one’s education is developing a growing sophistication about one’s strengths and weaknesses, understanding what facilitates and hinders one’s learning, setting and monitoring personal learning goals, and so on. To fail in helping students become more independent in these ways is to fail in helping them become the sort of perennial learner they need to be to succeed in an increasingly complex world. It is really to fail in helping them become more fully human.

In a differentiated classroom, helping students become increasingly more self-reliant in learning is also propelled by the need to provide differently for different learners in order to maximize their growth. The teacher, then, cannot assume that everyone always needs to read the same book, answer the same questions, or receive the same kind of help. In a classroom composed of many individuals, it becomes increasingly important for those individuals to participate in crafting their own success. They need to be able to say that particular work is too hard or too easy for them. They need to be able to distinguish between more productive and less productive working arrangements. They need to be able to determine when they are moving toward goals and when they are derailed. They need to be able to set personal goals beyond those established for the class as a whole. When students develop these sorts of abilities, the teacher’s potential for success expands, as does that of the student.

Teachers in such classrooms will do the following:

- Help students understand, accept, and ultimately benefit from their differences.
- Nurture a growing awareness of students’ particular strengths.
- Explain the benefit of extending student strengths.
- Help students acknowledge areas of weakness.
- Facilitate ways to remediate or compensate for weaknesses.
- Guide students in developing a vocabulary related to learning preferences and in exercising those preferences that facilitate their growth.
- Ask students to reflect on their own growth, factors that facilitate that growth, and likely next steps to ensure continual growth.
- Support students in setting and monitoring personal learning goals.
- Provide opportunities for students to talk with their parents or guardians about their growth and goals.”

Carol Ann Tomlinson and Jay McTighe, Integrating Differentiated Instruction and Understanding by Design, 2006

In recent decades, OECD economies have experienced a rapid transformation from industrial to knowledge-based systems in which lifelong learning and innovation are central. Individuals who become self-directed learners are able to acquire expert knowledge in various fields, to change careers, and to endow meaningful lives with creativity and variety. Developing these capacities is not only important for a
successful economy, but also for effective social engagement, participatory democracy, and more equitable communities. Despite the challenges of the 21st Century, many of today’s schools still operate as they did at the beginning of the last century and are not encouraging the deep learning and skills that underlie innovative activity.

**How can today’s schools be transformed so as to become environments of teaching and learning that makes individuals lifelong learners and prepare them for the 21st Century?**