

The Adaptive Dimension

for Saskatchewan
K-12 Students



2017

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Preface

This document, *The Adaptive Dimension for K-12 Students (2017)* is a renewal of the foundational document, *The Adaptive Dimension in Core Curriculum (1992)*. *The Adaptive Dimension for K-12 Students (2017)* is designed to assist educators in making decisions **to support the achievement of all students** within the context of Saskatchewan's curricula.

Any reference in this document to schools is deemed to include conseil scolaire, First Nations schools, independent schools and custody and care schools that have been approved by the Ministry of Education.

Introduction

The Adaptive Dimension refers to the concept of making adjustments to any or all of the following variables: learning environment, instruction, assessment and resources. Adjustments to these variables are intended to make learning meaningful and appropriate and to support student achievement. Tomlinson (1999) states, "Differentiation is an organized yet flexible way of proactively adjusting teaching and learning to meet kids where they are and help them to achieve maximum growth as learners" (p.14). In the Saskatchewan context, differentiation is addressed through the Adaptive Dimension which enables all teachers to respond to student diversity, including their strengths and needs, interests, backgrounds, life experiences and motivations.

Within the context of the Adaptive Dimension, curricular outcomes are not changed; adaptive variables are adjusted so that the curricular outcomes can be achieved.

The Adaptive Dimension

- regards teachers as professionals who have the authority and the responsibility to make adaptations to the learning environment, instruction, assessment and resources to meet the needs of all students;
- encourages dialogue among professionals concerning the most appropriate support and effective means of responding to individual differences within the classroom;
- supports the understanding that decisions about adaptations are best made by professionals working with students on a daily basis;
- does not change curricular outcomes; and,
- promotes environments that cultivate collegiality and interprofessional collaboration fostered through the leadership of school administrators.

Four Variables of the Adaptive Dimension:

Learning Environment

Instruction

Assessment

Resources

Principles of the Adaptive Dimension

The Adaptive Dimension is a necessary component of all education in Saskatchewan schools. The following principles guide the implementation of the Adaptive Dimension in all classrooms:

- The Adaptive Dimension permeates all curricula, courses and programs.
- The Adaptive Dimension assumes that there is an inter-relationship among the variables (learning environment, instruction, assessment and resources) associated with adaptations.
- The Adaptive Dimension recognizes that students approach learning in multiple ways. Teachers need to actively respond to the strengths and needs of individual students. All students can learn and achieve as a result of effective assessment, planning and instruction.
- The Adaptive Dimension recognizes the importance of collaborative planning which is fundamental to structuring adaptations to maximize students' potential as independent learners.

“We want teachers who use their deep knowledge of subject matter along with knowledge of children’s histories, routines and dispositions to use their inquiry skills to alter approaches when the evidence that passes their eye says [the current approaches] are not working” (Pearson as cited in Allington, 2009, p. 110).

The Adaptive Dimension in Saskatchewan Education

The Adaptive Dimension is designed for all students in all educational programs. The following are types of education programs available to students in Saskatchewan schools.

Saskatchewan Education Programs

Elementary & Middle Level (K-9)	<i>Regular Education Programs</i> <ul style="list-style-type: none">• <i>Provincial Curricula</i>• <i>Locally Determined Options</i>
Secondary Level (10-12)	<i>Regular Education Programs</i> <ul style="list-style-type: none">• <i>Regular Courses</i>• <i>Locally Modified (Basic and Advanced Courses)</i>• <i>Locally Developed Courses</i> <i>Additional Education Programs</i> <ul style="list-style-type: none">• <i>Alternative Education Programs</i>• <i>Functional Integrated Programs</i>

Application of the Adaptive Dimension

The Adaptive Dimension refers to making adjustments to four variables: learning environment, instruction, assessment and resources. These adaptations are made by teachers to support student achievement in all K-9 subject areas and 10-12 courses and programs. Sound professional judgment is a critical factor when actualizing the variables of the Adaptive Dimension for successful learning in education. The Adaptive Dimension applies in all types of education programs available to Saskatchewan students, and the approved curriculum is always the starting point for making decisions about adaptations. **In short, the Adaptive Dimension applies in ALL situations.**

All students will work toward the achievement of the provincial grade level outcomes. Effective instruction, including the use of the Adaptive Dimension, will support most students in achieving success. Some students, however, will require additional supports. These supports should be determined through discussions among a team of educational professionals and would involve adapting the learning environment, instruction, assessment and/or resources for individual students.

If adaptations to the variables have been made and the student exceeds or is still not able to achieve the curricular outcomes, then teachers may need to alter the student's plan. The student then is engaged in a qualitatively different and individualized plan to achieve their potential. Any student in K-9 who is working on outcomes that are different from those in the grade-appropriate curriculum should have an individualized plan. **Students in K-9 are not placed on modified programs.** Individualized plans should be assessment driven, with decisions made by an interprofessional collaborative team that includes parents/guardians and, when possible, the students. Refer to [Actualizing a Needs-Based Model](#) for more information.

Modified courses occur only at the Secondary Level in the areas of social sciences, science, language arts and mathematics. At the 10, 20 and 30 levels, when regular courses do not meet the needs of a student, that student may be enrolled in modified (basic or advanced) courses. School divisions require ministry approval to offer modified (basic or advanced) courses before registering students in those courses. **The Adaptive Dimension ALWAYS applies** in order to support individual student achievement.

Supporting the Learner

“We should know our students well, and teach to their strengths while closely monitoring learning gaps. But the evidence is clear. Although what the student brings to school in terms of his or her learning background is important, a significant percentage of achievement variance lies within the teacher’s influence.”

(Hattie as cited in Fisher, Frey & Hattie, 2016, p. 167).

Students are best able to engage in learning when they feel supported, encouraged and have teachers who recognize their learning strengths. “Teachers should seek to discover students’ unique requirements for optimal growth, and then implement differentiated strategies to help them bloom” (Armstrong, 2012, p.4).

Teachers building strong, healthy relationships with students is an essential dynamic in students’ engagement and their ability to achieve success. Through the application of the Adaptive Dimension, teachers provide opportunities for students to recognize what they require as learners, and to express what they need to maximize their learning. Engaged students want to come to school and look forward to learning.

Any application of the Adaptive Dimension includes a holistic understanding of the learner. The following are important aspects to consider when responding to the strengths and needs of students.

Learning Profile: A learning profile represents how a student learns, and is shaped by the student's learning style, multiple intelligence preferences, gender and culture. Learning profiles are dynamic and change as students respond to experiences. The teacher must exercise professional decision-making to determine which adaptation to the variables, if any, are required to help students maximize their learning potential (Tomlinson, 1999). A learning profile provides information from the student's perspective and supports the teacher in knowing about the learner.

Cognitive Development: Students of the same chronological age in the same classroom may be at quite different stages of development in terms of their capacity to interact with curriculum and to benefit from specific instructional strategies. It is important that teachers know what types of learning tasks are appropriate for different levels of cognitive development in order to make the necessary adjustments in the learning experience.

Interests: Students' interests should be one of the major forces behind learning in the classroom. It is the teacher's responsibility to become familiar with the individual interests and abilities of each student and to use that knowledge to make the appropriate adaptations. By doing so, the teacher encourages students to explore and expand their interests and abilities in a variety of ways.

Physical Development: A clear understanding of the kinds of physical factors affecting students' abilities to learn and a willingness to adapt the variables to accommodate differences in physical development is critical to effective teaching. Large muscle and small muscle development, visual-motor coordination and development of spatial relations are just a few of the factors in students' physical development that have important implications for the students' success.

Social and Emotional Development: The social and emotional development of students must be taken into consideration when the teacher is observing students and planning the type and extent of adaptations required to support student learning. In addition to knowing about typical social and emotional development in children, the teacher must also consider such things as social and cultural factors, family constructs, home environment and the experiential background of the student that might create atypical patterns of development.

Self-Concept: It is essential for the teacher to recognize the importance of self-concept as a critical factor in the social, emotional and academic development of students. Teachers should structure learning experiences in the classroom in a manner that will help students to develop positive perceptions of themselves as individuals and as competent learners.

The Adaptive Dimension is tailored to meet individual student needs, the extent of adaptation and the duration of adaptation will not be uniform for all students. It also follows that not every student will require adaptations in all learning situations. Throughout the learning process, teachers should encourage student participation in the planning of the learning environment, instruction, assessment and resource selection.

When supporting learners in the classroom, teachers need to understand **the intent of the outcome and the accompanying set of indicators**, as well as the **diverse needs of each student**. These are the key elements to informing and determining the type and extent of adaptations needed for optimum student growth.

Adaptations should not be viewed as giving students preferential treatment or an advantage over their peers. It is important for teachers to keep in mind that adaptations are provided to students in order to give them equal opportunities to achieve curricular outcomes.

Four Variables of the Adaptive Dimension

“What am I teaching? Why am I teaching it? How will I teach it? How will I know when the students have it? What then? These five focusing questions must be at the top of all teachers’ minds when they are planning for instruction”

(Sharatt & Fullan, 2012, p. 103).

The intent of the Adaptive Dimension is to maximize student learning and support achievement of curricular outcomes. The Adaptive Dimension includes all practices teachers use to make learning meaningful and appropriate for each student. To effectively utilize the Adaptive Dimension, teachers adapt the variables: **learning environment, instruction, assessment and resources**. It is expected that teachers will use approved curricula as a starting point for making decisions about adaptations.

The teacher is the key to decision-making when implementing the Adaptive Dimension.

“What teachers do matters when they scale learning to move from surface, to deep, to transfer learning and match approaches to their students’ conceptual levels of knowledge. What teachers do matters when they monitor their impact and use that information to inform instruction and intervention. What teachers do matters when ...they make ...learning visible to their students so students can become their own teachers” (Fisher, Frey & Hattie, 2016, p. 167).

Adaptive Dimension and Learning Environment

“The learning environment can either improve or impede a student’s ability to learn and feel safe and comfortable as a member of the class” (Bucholz & Sheffler, 2009, p. 2). The learning environment should do as much to foster cooperation and acceptance as the teacher’s approaches to instruction.

There are important elements to consider when establishing a positive and respectful learning environment. Teachers should consult and collaborate with colleagues and work with students to create functional, adaptable and aesthetically pleasing learning environments. It is important to develop an environment that respects the identity of all students, including those who are gender and/or sexually diverse. Teachers and members of the class need to model respect for cultural and linguistic diversity by encouraging students to use their first language and share aspects of their culture.

Consistent, predictable and structured environments ensure that students know what to expect. However, within the structure, there needs to be flexibility to respond to emerging needs of students. Students should be involved in decisions regarding the layout of the physical space, to ensure the environment is engaging and supports a variety of instructional approaches, including small group and individual learning. Beyond the design and organization of a classroom, the culture of the classroom needs to reflect that all students are valued and capable learners. The environment should generate an atmosphere for learning that honours worldviews and reflects students as capable learners.

A positive learning environment is built on healthy relationships that include a system of supportive and caring teachers, student connectedness and parent/guardian involvement. Positive teacher-student relationships are rooted in trust, mutual respect and effective communication. Healthy learning environments include the involvement of student voice in classroom organization and management, and hold students accountable in a fair and equitable way (Fisher, Frey & Hattie, 2016).

Adaptive Dimension and Instruction

Instruction builds on students' prior knowledge and understanding, and considers students' interests, learning profiles, perspectives, preferences and linguistic and cultural backgrounds. Instruction is informed by ongoing assessment of students' strengths and needs. While some students require the challenge of abstract concepts, others need concrete examples to assist them in their thinking processes. When planning instruction, the teacher needs to consider the complexity of concepts and the thinking required to comprehend those concepts. Teachers should consult and collaborate with colleagues to identify students' strengths and needs to continuously correlate, monitor and adjust their instructional approaches.

“Differentiated instruction is effective instruction that is responsive to the diverse learning needs and preferences of individual learners” (Hume, 2008, p. 1).

Planning for whole class instruction provides the teacher an opportunity to make some initial decisions concerning the needs of all students in the class. Some students may require no adaptations because the learning environment, instructional practices and resources are appropriate to their needs. The teacher uses knowledge gained through formal and informal assessments to make decisions for adaptations to support student learning.

Adaptations for small groups are dynamic in the sense that subsequent assessment leads to further adjustments for improved student learning. Grouping arrangements must be flexible based on student needs in any given subject area.

Through an informed decision-making process, based on assessments, a teacher determines the adaptations necessary to **enrich, extend, reinforce or teach differentially** in order for individual students to achieve the curricular outcomes. These adaptations are also expected to be varied, flexible and of the appropriate duration for student engagement and success.

Students are engaged when the instruction is adapted (differentiated) and students are in flexible groupings to meet their individual needs at that moment. In differentiating instruction, teachers use approaches to move students from where they are in their learning (using ongoing assessments) to their next levels of learning. The gradual release of responsibility model is a recursive approach for moving classroom instruction from teacher-centered (whole-class instruction) to student-centered (small group, individualized) and independent practice.

(Fisher & Frey, 2014)

Adaptive Dimension and Assessment

Assessment is a fundamental part of the teaching and learning process. Teachers should get to know their students socially, emotionally and academically. It is essential for teachers to gather the right data in order to use relevant information to guide instruction and direct student achievement (Sharratt & Fullan, 2012). Effective and authentic assessment includes designing performance tasks that align with curricular outcomes and involving students in determining how their learning will be demonstrated. In Saskatchewan provincial curricula, there are three inter-related purposes of assessment: assessment for learning, assessment as learning and assessment of learning. These assessments contribute to an overall picture of an individual student's achievement.

Just as teachers adapt instruction to meet the needs of the students, assessment must be adjusted so individual needs are met. Any assessment should be fair and equitable, giving all students opportunities to make connections and demonstrate the extent of their knowledge, skills and abilities in a variety of ways. Assessments should connect to, and not compromise the integrity of the intent of the outcome and its set of indicators.

Adaptations may include changes to the format of the assessment (for example, oral rather than written), the length of time allowed to complete the assessment or the place of assessment (for example, a private space rather than the classroom). Effective classroom assessment includes a variety of evidence, and should encourage active participation and student self-assessment. By focusing on adapting assessments to match student strengths and needs, teachers can provide opportunities for students to be successful.

Adaptive Dimension and Resources

Selecting the appropriate resources for students is crucial for ensuring optimal progress and success (Routman, 2014). When colleagues consult and collaborate to select a range of resources (print, visual, audio and multimedia) student learning is enhanced. Students should have opportunities to select resources that are engaging and reflect their interests and needs.

Application of the Adaptive Dimension in resource selection includes accessing relevant and credible resources that reflect the diversity of students in their abilities, perspectives, identities, interests, experiences,

cultures and ways of knowing. Inquiry learning offers the teacher flexibility in providing resources that are appropriate for the variations in language development, ability and interests found in every classroom. Some students may require resources that provide basic information on a topic while other students in the same class may require advanced materials on the same topic. Resource options should include opportunities to reinforce, enrich and extend the learning for students without compromising the intent of the curricular outcomes.

Just as teachers adapt instruction and classroom assessment practices to meet the needs of the students, a range of resources must be provided to support students in their achievement of curricular outcomes.

Ideas for Adapting the Variables

Learning environment

- Decrease excess noises and reduce visual and physical clutter in the classroom.
- Provide an area free from distractions for students.
- Model for students how to organize their materials in a way that promotes student success.
- Create alternatives for seating arrangements and include seating options such as stand-up desks/tables, ball chairs and rocking chairs.
- Teach students organization skills such as making lists, using graphic organizers and establishing priorities.
- Encourage students to learn and interact in ways that are culturally familiar to them.
- Include print and visual information that reflects students' cultures, first languages and identities.

Resources

- Provide resources in a variety of formats including print, visual, audio and multimedia.
- Collaborate with students to select resources that reflect diversity and students' needs and interests.
- Invite students to use portable electronic devices to document information.
- Provide assistive technology such as speech to text, text to speech, word prediction, talking dictionary and highlighter.
- Encourage students to use visual dictionaries to verify meanings or spellings of words.
- Provide online accessibility to textbooks, assignments, calendars with assignment and assessment dates and assessment rubrics.
- Support EAL students' language needs with resources in the language of instruction and in their first language.

Instruction

- Offer students more time to respond orally, read passages and complete learning tasks.
- Use multi-sensory (auditory, visual, tactile, kinesthetic) instructional materials to support student comprehension.
- Provide an advance visual organizer, outline or copy of notes to students when presenting academic content.
- Enable students to record oral lessons.
- Supplement auditory information with visual cues and gestures.
- Chunk presentations into short segments.
- Reduce the amount of text on screens or printouts.
- Segment instruction for physical (e.g., body breaks) and tactile activities.
- Provide opportunities for learning tasks that are active (rather than focusing on only sedentary tasks).
- Model/demonstrate ways to self-regulate.
- Support students to recognize their learning strengths and styles and the adaptations and strategies that work best for them.
- Increase the wait time after questioning and during discussions.
- Make available advanced or challenging tasks to students who require enrichment or extension.
- Activate and build on background knowledge or experience for students.
- Tailor tasks and units to students' interests and cultural needs.
- Use the gradual release of responsibility model to meet the needs of individuals and groups of students.
- Ensure guided/scaffolded and independent practice and application are a part of instruction.
- Use a combination of advanced and simple vocabulary during instruction and conversations with students.
- Pre-teach challenging vocabulary.

Assessment

- Provide additional time to complete assessments.
- Offer a reader and/or a scribe and explain difficult wording.
- Give students specific dates for completion of individual parts of an assignment.
- Communicate details about assignments and examinations to parents/guardians in electronic or print format.
- Use a variety of ongoing daily assessments to monitor students' progress.
- Present options to students regarding topics, tasks, resources and learning groups.
- Vary options for demonstrating learning (oral, written, visual, dramatic, multimedia).
- Involve students in assessing their learning and development using portfolios, celebrations of learning and/or electronically documented learning.
- Involve families in developing plans for supporting student achievement.

Summary

The Adaptive Dimension empowers the teacher to make adjustments to the four variables: **learning environment, instruction, assessment and resources**. The Adaptive Dimension always applies and permeates all curricula, courses and programs.

The Adaptive Dimension is intended to meet students' needs through adaptations that **enrich, extend, reinforce or teach differentially**. Adaptations should not be viewed as giving students preferential treatment or advantages over their peers. Students are provided with adaptations in order to give them opportunities to achieve curricular outcomes. Curriculum outcomes are not changed.

Teachers start with approved curricula, considering the intent of the outcomes and accompanying sets of indicators, and adapt to support the strengths and needs, backgrounds and interests of individual students. Adaptations are varied, flexible and of the appropriate duration for student success. The Adaptive Dimension responds to variations in student strengths and needs in regular, modified, alternative and functional integrated education programs in Saskatchewan schools.

The classroom teacher, in collaboration with other professionals, is the key to successful application of the Adaptive Dimension. It is the teacher as decision-maker who assesses the needs of each learner in the classroom and then exercises professional judgment regarding the adaptive variables in order to provide the best possible education for every student in the classroom.

Saskatchewan Education Programs

Elementary and Middle Level (K-9):

Regular Education Programs

- Provincial Curricula
- Locally Determined Options

Secondary Level (10-12):

Regular Education Programs

- Regular Courses
- Locally Modified (Basic) Courses: 11, 21, 31
- Locally Modified (Advanced) Courses: 10A, 20A, 30A
- Locally Developed Courses: 10L, 20L, 30L

Additional Education Programs

- Alternative Education Programs
- Functional Integrated Programs (FIP)

Resources for Further Support

[A Guide to Using the Common Frame of Reference](#)

[Actualizing a Needs-Based Model](#)

[Early Literacy: A Resource for Teachers](#)

[English as an Additional Language](#)

[Inclusion and Intervention Plan Guidelines](#)

[Inclusive Education](#)

[Policy, Guidelines and Procedures for Alternative Education Programs: Grade 10, 11, and 12, 2016](#)

[Policy and Procedures for Locally Developed Courses](#)

[Policy, Guidelines and Procedures for FIP](#)

[Policy and Procedures for Locally Modified Courses of Study](#)

[Registrar's Handbook for School Administrators](#)

[Saskatchewan Curriculum](#)

[Teachers Make the Difference](#)

[Teaching Students with Reading Difficulties and Disabilities](#)

References

- Allington, R. (2009). *What really matters in response to intervention: Researched based designs*. Boston, MA: Pearson Education.
- Armstrong, T. (2012). *Neurodiversity in the classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Bucholz, J., & Sheffler, J. (Spring/Summer 2009). Creating a warm and inclusive learning environment: Planning for all children to feel welcome. *Electronic Journal for Inclusive Education* 2(4). Retrieved from: <http://corescholar.libraries.wright.edu/cgi/viewcontent.cgi?article=1102&context=ejie>.
- Fisher, D., Frey, N., & Hattie, J. (2016). *Visible learning for literacy: Implementing the practices that work best to accelerate student learning*. Thousand Oaks, CA: Corwin Press.
- Hume, Karen (2008). *Start Where They Are: Differentiating for Success with the Young Adolescent*. Toronto, ON: Pearson Education Canada.
- Routman, R. (2014). *Read, write and lead: Breakthrough strategies for schoolwide literacy success*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Saskatchewan Education. (1992). *The Adaptive Dimension in core curriculum*. Retrieved from: <http://publications.gov.sk.ca/documents/11/15309-Adaptive-Dimension.pdf>.
- Saskatchewan Learning. (2004). *Teaching students with reading difficulties and disabilities: A Guide for Educators*. Retrieved from: <http://publications.gov.sk.ca/documents/11/40207-Reading-Difficulties-Disabilities.pdf>.
- Saskatchewan Ministry of Education: Office of the Registrar. (August 2016). *Registrar's handbook for school administrators 2016-17*. Retrieved from: <http://publications.gov.sk.ca/documents/11/86941-2016-17%20Registrar's%20Handbook.pdf>.
- Saskatchewan Ministry of Education. (2015). *Actualizing a needs-based model*. Retrieved from: <http://publications.gov.sk.ca/documents/11/87218-Actualizing%20a%20needs-based%20model.pdf>.
- Saskatchewan Provincial Reading Team. (2015). *Saskatchewan Reads: A companion document to the Saskatchewan English language arts curriculum grades 1, 2, 3*. Retrieved from: <https://saskatchewanreads.wordpress.com>.
- Sharratt, L, Fullan, M. (2012). *Putting faces on the data: What great leaders do!* Thousand Oaks, CA: Corwin Press.
- Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, VA: Association for Supervision and Curriculum Development.