



Connecting **P**ractice and **R**esearch  
in Mathematics Education

# Professional Learning Guide

## The Adolescent Learner

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The adolescent mathematics learner is experiencing changes and challenges in several domains simultaneously:

- Intellectual: beginning to incorporate abstract and symbolical reasoning and objective judgments into problem solving.
- Physical: maturing at varying rates, often restless or lethargic.
- Emotional: sensitive to criticism, self-conscious, lacking self-esteem
- Social: testing limits; loyal to peer group; insensitive to those outside peer group; can be confused by large impersonal environments.

**“[Adolescent] students vary greatly in their development and readiness for learning and teachers play a critical role in judging the developmental stage of each student.”**

**Reys et al (2003)**

### **In your classroom, this means:**

- capitalizing on adolescent learners’ characteristics, whenever possible;
- using strategies such as the 20-2-20 Rule: 20 minutes into the lesson, students’ explain what they have just learned; 2 days later students review and apply the new information; 20 days later, students reflect on what they have learned and apply the concepts/skills in a different way;
- obtaining student input in determining classroom rules and procedures;
- making the classroom a safe place in which to take risks and participate during mathematics learning;
- presenting opportunities for students to move around and engage in situations kinesthetically;
- having students discuss and investigate different ways of thinking about and doing mathematics;
- using a variety of groupings that suit the purpose for learning;
- presenting tasks that have multiple entry points to accommodate a range of thinkers;
- providing tasks that allow students to move through the concrete to abstract continuum.

### **Considerations:**

For more information, go to:

<http://www.edu.gov.on.ca/eng/studentssuccess/lms/files/tips4rm/TIPS4RMDevMathLit.pdf>

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## My Personal Reflection and Plan

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To what extent do I consider the age and stage of the adolescent learner when preparing and delivering a mathematics lesson?

- occasionally       fairly often       at every opportunity

What two characteristics of the adolescent learner do I need to pay closer attention to?

What characteristic of the adolescent learner can I capitalize on to improve the learning environment in my classroom?

How can I adjust my planning and teaching to focus on each of these characteristics?

What characteristic of the adolescent learner do I find difficult to manage or accept?

What steps can I take to improve my understanding and appreciation of this characteristic?

How will I know that I am improving in my understanding of this?

Other ideas and thoughts I have after hearing the comments of my peers:

## Next Steps

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Lesson from TIPS4RM that I will teach to focus on improving my understanding of the characteristics of the adolescent learner:

Lesson Goal:

Characteristic(s) of the adolescent learner I need to consider for this lesson to be successful:

I will use the following structures and guidelines to meet student needs:

I am making the following adjustments to the lesson to consider the characteristic(s) of the adolescent learner:

<b>Adjustment</b>	<b>Characteristic Focus</b>
<ul style="list-style-type: none"><li>•</li> <li>•</li> <li>•</li></ul>	

Other notes:

## Lesson Debrief

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The adolescent learner characteristics I focused on were:

Evidence that students engaged in the lesson:

### Reflection

- What went smoothly?
- What created challenges?
- What strategies did or didn't work?

If I were to teach this lesson another time, I would:

Other ideas and thoughts I have after discussion with my peers: