

Leveling Up Through Cognitive Progression

All students are not at the same cognitive stage, and they all do not have the same learning style. Thus, when you stand before your class to teach a skill, you are only reaching a portion of your class.

Video-game developers use a technique called "leveling up" to create momentum as players improve and excel from level to level (Mark Prensky, 2006). At every level, a new challenge is introduced that builds on prior knowledge and success, and that requires a specific strategy and higher-order thinking to overcome. Each level is a cognitive progression; it provides the player with a challenge that is just above their prior level of success. Meeting with small successes as the play gets harder keeps players motivated and engaged as they believe, with a little work, they have the ability to master the next level because they have mastered the one that came before.

Starting with the End in Mind

Providing students with the "leveling up" experience allows them to grapple with new content that builds on successes with the content that came before. Identifying and providing graduated opportunities for students to learn the strategies and foundational skills necessary to achieve the end goal allows the brain to tackle new learning. According to Lev Vygotsky's theory of the Zone of Proximal Development, some students are ready to learn, some lack prerequisite skills, and some already have acquired the skill. Additionally, some students learn best visually, others auditorily, and others kinesthetically.

As you begin planning, focus on the end goal. Once the end goal is in focus, you can deliberately plan to "level up" and provide individualized, differentiated, instructional activities to meet the needs of all learners. Throughout a problem-based learning unit, you should offer a variety of learning opportunities, including learning centers, simulations, manipulatives, and cloning tools.

Leveraging Cognitive Progression to Build Student Achievement

Choose a lesson within the unit you are creating. Select a standard or skill within that unit and complete the chart below. This will encourage you to establish the end goal and identify the various strategies or foundational skills that provide a means to the end. An example has been provided.

6.RL.4 - Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.			
My goal is to:	Analyze the impact of a specific word choice on meaning and tone	**Learned By:**	Modeling of analysis, practice, significant reading, discussion
Which means I must:	Understand the figurative and connotative meanings of words	**Learned By:**	Instruction, independent learning, practice, reading
Which means I must:	Determine the meaning of words and phrases as they are used in a text	**Learned By:**	Instruction, independent learning and practice

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Standard:			
My goal is to: (the end goal)		**Learned by:** (how the students will learn the strategy)	
Which means I must: (strategy/ foundational skill that will lead to achievement)		**Learned by:** (how the students will learn the strategy)	
Which means I must: (strategy/ foundational skill that will lead to achievement)		**Learned by:** (how the students will learn the strategy)	

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