



**FPG Snapshot**

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# Helping Teachers Focus: Four Variables for Success

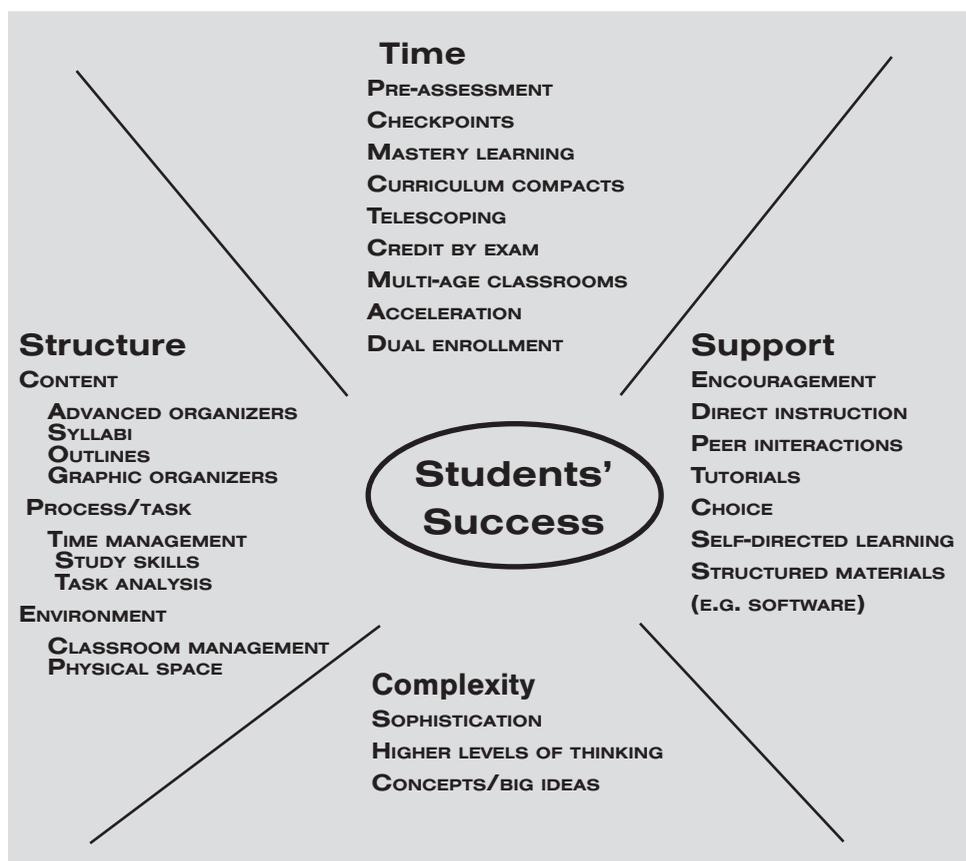
## Variables are like rheostats, adjusted for each student's needs

Every student has unique learning needs. This makes teaching both exciting and challenging. The dynamics of teaching and learning are complex with many intervening variables that affect success. Navigating this multifaceted system and working to meet each student's needs can feel overwhelming at times.

But if we think about the variables that we can actually change for our students, we can focus our efforts. The things that we can change to help students learn can be organized around four variables: time, structure, support, and complexity. Each student has unique needs for each variable, and their needs change depending on the subject, the topic, and even the day! But all students need these four things in differing amounts and with differing intensities in order to be successful in learning.

The good news is that while each student is unique, their needs are often very similar to other students. This means that as teachers we can make adjustments for small groups of children and do not have to create individual lessons for each student. The key is to plan for flexibility in each variable. These variables are like rheostats that can be adjusted to fit students' learning needs. They can describe efforts at different levels of the educational system, the school, the grade and the classroom. They can be applied to the curriculum, the pedagogy, the learning environment and the learning community.

These four pedagogical variables are the ones that tie most directly to students' success and they can be adjusted for all students. Let's look at each variable and how it can be used.



## Time

If you have taught for more than a day you know that in the same classroom, often sitting side by side, you have some students who readily complete their work in half the allotted time and others who need double the time to be successful.

Time is the most important variable to address and is the starting place for the other three. As a teacher you need to plan ahead for students at both ends of the time continuum.

Here are some strategies we typically use to bring some flexibility to "time":

- pre-assessments to see where our students are (multiple entry points)
- checkpoints to let students show what they know (this lets them "check-out" legally and go on to something more useful)
- mastery learning with self-pacing
- curriculum compacting

Continued

- telescoping the curriculum
- credit by exam
- multi-age classrooms
- acceleration
- year-round schooling with built-in time for enrichment/remediation
- summer school and retention are also forms of differentiation that adjust for learning time (these, however, tend to be used as punitive devices rather than proactive ways to ensure students' success)
- extended classes (e.g. Algebra A & B)
- dual enrollments

In order to use time flexibility in classrooms we must have viable alternatives for students to allow them to engage in meaningful work. In practice, this may look like the “three-reading-group-rotation” model where one group meets with the teacher, the second works on seat assignments and the third works in centers.

When we combine this with tiered center activities and seatwork, we can have clusters of students working simultaneously on multiple tasks that are matched to their level of needs.

## Structure

The second variable is structure. This addresses the organization we bring to our Content, Process/Task, and Environment. While all students benefit from structures that are explicit, some students need this more overtly, while others are able to provide their own structure to learning. Let's look at each of these areas.

**Content.** While teachers are primarily responsible for structuring their lessons and curriculum, we can also assist students by giving them concrete strategies to bring structure to their understanding. Here are a few ways we can provide more structure to the content we are teaching:

- advanced organizers
- mind maps
- graphic organizers
- thinking maps
- essential questions
- syllabi

- focus concepts
- outlines for presentations
- concept maps
- curriculum mapping

**Process/Task.** Time management begins early when we help our kindergarten students plan how long they can stay in a center to complete the task at hand and it extends all the way through college when we assist students in planning their doctoral dissertation. Effective time management is critical for a student's success and time management can and should be taught!

Students often confuse completing homework with “studying,” failing to understand that studying is a lifelong skill that allows us to continue to learn and grow. Learning to study well means understanding how you learn best (your learning style) and how the subject you are studying is organized – the structure of the discipline!

An important skill in learning is to break large tasks into manageable pieces. We do this for ourselves when we face tasks that feel overwhelming (setting up a new classroom or designing a new course) and we can help students to identify the smaller steps needed to complete a bigger task. This is most evident in things like planning a science project, a research paper or an independent study, but it can be essential for some students in looking at daily assignments.

**Environment.** Finally, structure includes the way we set up our environments for learning. The use of space within the classroom and the expectations for appropriate behavior in different classroom “zones” has always been important for learning. It is even more important, however, when students are engaged in multiple tasks simultaneously. Without clear expectations and structure this can lead to chaos. We must establish expectations for working in learning centers, for small group and independent study

work, for using computers, for seminars, and for whole group time. Students should be able to operationalize classroom routines for turning in homework, for moving from small to large groups, and for all of the major transitions within a day.

## Support

Support involves the provision of encouragement and feedback to motivate students and to guide their activities. Just as students need more or less time and structure, they need different levels of support.

Some students are extremely independent, thriving with little direction, attention, or encouragement. Other students, however, need more support to build their confidence.

Support can be provided by the teacher, it can be provided by a peer group, and it can even be provided by the way the materials are structured for learning (e.g. software that gives systematic feedback to the learner on her/his progress).

The goal of all support is to increase the student's autonomy and self-direction.

## Complexity

We are encouraged to organize our curricula around overriding concepts. Questions, either asked by us or by our students, are frequently the vehicle that drives our exploration into complexity.

Complexity involves seeing the relationships across ideas and weaving smaller pieces or fragments of information into major understandings. Complexity is the cornerstone of curriculum differentiation for gifted students, but appropriate levels of complexity are necessary for all learners. ■

This *Snapshot* is based on the article “Four variables for success” by Mary Ruth Coleman of the FPG Child Development Institute at the University of North Carolina at Chapel Hill. It was published in *Gifted Child Today*, Winter 2003, 26 (1), 22-24.



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