




## The Importance of Differentiation: Why Different Students Need Different Things

Most educators have been introduced to the idea of differentiation, the concept that individual students have unique needs, but to what extent and what needs should they differentiate? To begin to explore the full range of differentiation, and what yields the most growth for students, let's explore a simpler example in a first grade classroom.



It's science time in Mrs. Thompson's room and she is beginning a unit of study on plants. She plans to have students plant pumpkin and sunflower seeds along a windowsill where there is good light. She makes sure that there is soil, containers, and cups of water for the students to use. While her eager first graders scoop the plant seeds out of their packets, Mrs. Thompson shares that all of their plants will need 4 key things to survive: soil, air, water, and light. However, one student calls out that they have two different plants and wonders if they will need the same amount of light. Another asks if they will like the same amount of water.

Mrs. Thompson quickly realizes that her students want to explore not only the things a plant needs to survive but what amounts of those things do they require to **thrive**. Intrigued by these questions, she decides to group students and have them differentiate the amounts of light and water for their plants. Here's what they find:

<b>Water</b> ¼ cup every week	<b>Water</b> ¼ cup every other day	<b>Water</b> ¼ cup every week
<b>Light</b> Bright windowsill	<b>Light</b> Bright windowsill	<b>Light</b> Dimly lit windowsill
 Sunflower Pumpkin	 Sunflower Pumpkin	 Sunflower Pumpkin

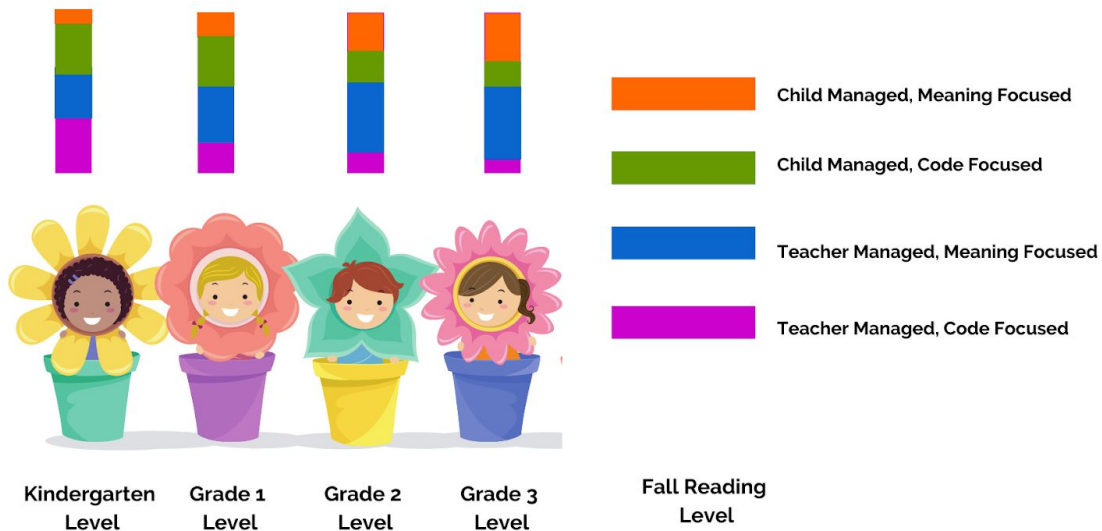
After seeing their results, the students concluded that plants need the same things to survive but different plants need different amounts of water and light to **thrive**.

**While this classic science experiment clearly shows that plants can thrive when the conditions are suited to their specific needs, how does this relate to students and reading instruction?**

Just like plants, students benefit most when more than just their basic needs are met. Students will thrive and blossom when their unique characteristics are used to guide the instruction they receive! We know that the best differentiated reading instruction should be divided into four types of instruction: *child managed*, *teacher managed*, *code-focused* and *meaning-focused*. In addition, we know that students respond differently to the amount of time they spend in each of these areas, known as "[child by instruction interactions](#)". This means a differentiated plan for each student will provide the best environment for each of them to grow and expand their literacy skills. Take a look at what that might look like below:

**Beginning First Graders Need Different Amounts of Four Types of Instruction**

Instructional Recommendations for First Grade students in the fall (minutes per day)



**In conclusion, we know the best differentiation, which leads to maximum growth, comes from providing students with their 'just right' amount and type of instruction. The algorithms in A2i do the heavy lifting of determining what that is for each student, no science experiment necessary! It will recommend the exact amounts and types of instruction that will benefit each student most! This takes the guesswork out of instruction, ultimately leading to better outcomes for ALL students.**