Cummins Quadrants Case Study

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## Abstract

The purpose of this case study is to address the framework of Cummins Quadrants and its impact on educational planning. When planning takes place without using this framework, students are not provided access to lessons that are cognitively demanding. Cummins Quadrants also takes into consideration the level of support that various students will need in order to access the curriculum while still exposing them to cognitively demanding material. This case study will focus on the accommodations needed by a 5<sup>th</sup> grade student who is in the visually impaired program accessing the standard, English-Language Arts curriculum in the general education classroom setting.

*Keywords*: English-Language Arts (ELA), Cummins Quadrants (CQ), Quadrants 1, 2, 3 and 4 (Q1, Q2, Q3 & Q4), Visually Impaired (VI)

## **Case Study**

Mason is a 5<sup>th</sup> grade student identified as visually impaired accessing the standard curriculum in the general education setting. A visual impairment includes "students who are blind, have no vision or little potential for using vision; students who have low vision; students who have a visual impairment after best correction that adversely affects their educational performance; or students who have been diagnosed with a progressive condition that will most likely result in a visual impairment or no vision after best correction" (FLDOE, 2018). Mason is diagnosed with low vision along with decreased peripheral vision as a result of albinism.

According to the American Association for Pediatric Ophthalmology and Strabismus (2016), low vision is a visual impairment of partial vision loss that cannot be corrected.

Mason's glasses allow him to see faces from about a five-foot distance. He needs to be placed in the front of the classroom closer to the board or closest to where teacher-led instruction is taking place. He needs his own copy of notes, printed in a larger font, prior to the lesson. The reasoning for this is although he is able to read and comprehend text at his instructional grade level, he does so at a slower pace due to his vision impairment. As a result, also benefits from a human reader, books on tape or any device that reads the text for him with a natural voice, and magnification devices. He needs for information to be presented in a de-cluttered format as this can impede his comprehension. He needs extra time to complete assignments, projects and tests. He also needs to be placed in the small-group setting for state or standardized assessments. In addition, furniture needs to be placed in a de-cluttered, organized fashion. The classroom walkways and free space should be free of potential tripping hazards. Mason is able to work in the cooperative group setting and benefits from peer-assisted instruction and modeling. There are 15 students and one teacher in Mason's Intensive Reading class.

## Standard and Goal of Lesson

According to CPALMS (2017), the standard the 5<sup>th</sup> graders will be working on is LAFS.5.L.3.5: Students should be able to demonstrate an understanding of figurative language, word relationships, and nuances in word meanings. The text is a poem from Shel Silverstein titled "Masks" from her children's book *Everything on It*, (2011). The goal is for students to read the poem and explain the relationship that the figurative language has on the meaning of the poem. They need to explain the metaphorical meaning of the phrase "blue skin". They also need to look at the illustration and explain how the drawing contributes to the overall message of the poem.

Cummins Quadrants. Professor J. Cummins of Alberta University developed the framework of how academic tasks can increase or decrease in their levels of cognitive demand based on the level of contextual support provided or removed by the teacher (1984). This framework is knowns as Cummins Quadrants. Below is an illustration of Cummings Quadrants from the South African Journal of Education.

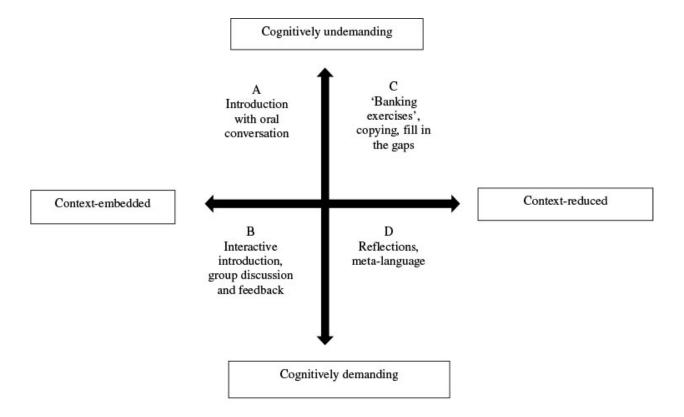


Figure 2 Literacy practices classified within a degree of cognitive activity and contextual support. The results from the study, with teachers' and learners' activities, are placed in the appropriate quadrant.

Lundgren, B., Scheckle, E., Zinn, D. (2015).

The goal is for Mason to explain the relationship that figurative language has on the meaning of the poem. The students will meet this goal by completing three activities: 1.

Answering questions about metaphors and masks by using their background knowledge. 2.

Analyzing the impact of an author's use of figurative language on the poem's meaning. 3. Use a paired text to understand the meaning of a poem. The activity in Q1 will be cognitively undemanding. The teacher will activate the student's prior knowledge of masks by asking questions such as, What are masks? and Have you ever worn a mask? Students will make a prediction on what the poem will be about based on the title and illustration. It is contextembedded because the teacher is providing all of the support in the form of questioning. Next Mason and his classmates will listen as the teacher reads the poem.

The next activity falls under Q2 and it will be more cognitively demanding as the students will work in pairs and given the TPCASTT graphic organizer. Students will re-read the poem answering the following information that was previously taught: T: Title-What do you predict the title will be about based on the poem? (This task was done previously when the teacher introduced the poem.) P: Paraphrase-summarize the poem in your own words using about 3 to 5 sentences. C: Connotative/Figurative Language-Identify the types of figurative language found in the text. A: Attitude-What is the author's attitude about the subject of masks? Use textual evidence to support your answer. S: Shift-In what line or stanza does the shift take place? T: Title Again-Explain the significance of the title with new insight. T: Theme-What is the overall life lesson on the poem?

The activity in Q3 will be cognitively undemanding as the students will retrieve information from their charts to reiterate the theme of the poem. (The last T of their graphic organizer.) In Q4, students will read a paired text entitled *The Champion of Quiet* by Tracy Stewart. With the theme of the poem in mind, students will independently find textual evidence from the short story that relate to the theme of the poem. This activity will be more cognitively demanding with dramatically reduced contextual support from the teacher.

The Impact of Cummins' Quadrants on Planning. When introducing a new topic, it is important to engage your students so that the most learning can occur. Doug Lemov describes this scaffolding technique as cold call (2010). This technique is seen in Q1 with activating the student's background knowledge. The instructor starts the questioning with simple questions and progresses to harder ones. This does not take much cognitive demand and Mason will be able to answer these questions by drawing upon past experiences. Q2 is where most of the student learning will take place. These activities need to be more demanding, but with more contextual

support. This is where the instructor needs to take the student's accommodations and learning styles into consideration. Instructors need to use "brain-compatible strategies" (Tate, 2014). The brain-compatible strategies planned for in Q2 are graphic organizer, mnemonic devices and storytelling. The TPCASTT sheet is a visual and tactile compatibility. It is also a mnemonic device because the TPCASTT acronym helps Mason to remember the literary devices used by the author in poetry. Storytelling is a device for students like Mason who have strengths in verbal-linguistics. The demand and context are reduced in the lesson that falls under Q3. It is an assignment that all students can complete. Mason is in the group setting for that activity and he has been provided the graphic organizer and text beforehand. The end-product of analyzing two texts for a common theme is a cognitively demanding and context reduced activity that Mason will be given extra time to complete. His peer can read the short story to him and he can retell it to the teacher. Again, Mason has also been given the materials in advance in a larger font to aid in is comprehension. As it can be surmised by the steps taken to ensure that the lesson was cognitively demanding, it was critical to plan with the framework of Cummins' Quadrants.

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