PDI

Professional Development Institute

Flex Course Syllabus

Enhancing Comprehension in Grades 2-5
with Science of Reading (Grades 2-5)

PDI Course Number: 162T02

UCSD Course Number: EDUC42610

If you would like information about receiving post-baccalaureate (graduate) credit for completing this course, please click here.

Course Timeline

Participants have one year to complete the course. Participants must spend a minimum of three weeks in this course.

Course Description

Do you find yourself wondering how to harness the principles of reading science to help students more thoroughly engage in the reading process so that they can better comprehend what they are reading? While many students may first appear to be engaged in the reading process, the fact is that once you dig deeper, you may find that a good number of students fail to connect with the text. This online course takes a deep dive into a variety of best practices based on the science of reading to help teachers in grades 2-5 guide their students to greater comprehension. The course begins with an in-depth overview of the science of reading — what it is (including an in-depth examination of Scarborough's Reading Rope), the data behind it, and how it can be harnessed to get your readers on the path to greater comprehension. Teachers will explore the "Big 5" strategies of reading comprehension, taking a deep dive into main idea and details, sequencing, the 5Ws- and H framework, inferring and predicting, and vocabulary — all through a science of reading lens. Teachers will learn how to leverage the science of reading as they guide their students to use their critical-thinking skills to question and sequence text, sort through text structures, and tap into their background knowledge as they use robust vocabulary to make inferences and predictions across fiction and nonfiction texts. By the end of this course, teachers will feel more confident in their quest to leverage best science of reading practices as they guide

their students to greater comprehension so that they can more easily make the transition from learning to read to reading to learn.

Educational Outcomes

1. Teachers will learn how the science of reading has evolved over time, including how the Simple View of Reading acknowledges that literacy is more than a single skill; it is the mastery of both what words are and what they mean.
2. Teachers will explore the data behind the science of reading as it pertains to drop-out rates, incarceration, and overall literacy
3. Teachers will learn about the various strands of Scarborough's Reading Rope, in an effort to understand the essential components of reading comprehension.
4. Teachers will be introduced to schema theory, and they will explore the different types of schemata (linguistic, formal, and content).
5. Teachers will explore the three levels of comprehension (literal, inferential, and evaluative) to gain better insight into how the different types of memory (short-term, working, and long-term) impact a person's overall comprehension.
6. Teachers will learn about cognitive load theory, and they will understand how the three different types of cognitive load (intrinsic, extraneous, and germane) all work together to help manage cognitive overload.
7. Teachers will take a deep dive into the "Big 5" components of reading comprehension (main idea and supporting details, sequencing, inferring and predicting, questioning, and vocabulary), including research-based best practices for addressing each component.
8. Teachers will explore main idea and supporting details using a science of reading lens, so that they understand how to build students' comprehension with this crucial first component of reading comprehension.
9. Teachers will learn how to present the different types of text structures (sequence, description, compare and contrast, cause and effect, and problem and solution) to help students comprehend what they are reading.
10. Teachers will explore the various features of informational text (title, table of contents, headings, bold or italicized words, captions and images, glossary, index) as a way to further students' comprehension of informational text.
11. Teachers will explore how the structure and theme of narrative text to help identify main idea and supporting details.
12. Teachers will learn about the different types of sequencing structures (chronological, logical, spatial order, order to importance, numerical, cyclical) and how they can be used to sequence a passage into an ordinal series using the "I Do, We Do, You Do" approach.
13. Teachers will explore how sequencing can be used across the curriculum so that student comprehension is increased in writing, math, social studies, and science.
14. Teachers will explore a variety of strategies to introduce and practice sequencing using both fiction and nonfiction materials.
15. Teachers will learn about the 5W and H framework, and they will explore how to harness it to improve students' overall reading comprehension.
16. Teachers will learn about the different types of questions (open-ended, divergent, descriptive, connecting, probing).

17. Teachers will explore how Costa's Level of Questioning model can be used as a basis to improve students' comprehension.
18. Teachers will explore how the 5W and H framework and other strategies (KWL charts, main idea and supporting details, prediction sticky notes, double entry journals) can be used to improve students' comprehension of both fiction and nonfiction materials.
19. Teachers will learn how text-dependent questions can be employed to increase student comprehension.
20. Teachers will learn how inferences and predictions can be used to build students' overall comprehension skills.
21. Teachers will understand the impact that prior knowledge has on inferences and predictions.
22. Teachers will explore a variety of evidence-based strategies (text sets, pre-teach vocabulary, anticipation guides, integrating ELA with the content areas, and using content-rich texts) to stimulate students' higher-order thinking skills so that inferences and predictions can be successfully employed to comprehend both fiction and nonfiction texts.
23. Teachers will understand the unique challenges faced by English language learners, students with executive function deficits, students who struggle with abstract thinking, and students with dyslexia as it relates to their ability to infer and predict, and they will explore a variety of evidence-based strategies to help build students' comprehension skills in these areas.
24. Teachers will break down vocabulary instruction into six separate phases (word recognition, word meaning, word usage, fluency, analysis, and expression) using best science of reading practices.
25. Teachers will explore how to incorporate semantic gradients into their instruction to help their students uncover the nuances or shades of meaning of vocabulary.
26. Teachers will learn how to extract meaning through structural analysis of word parts (morphemes, prefixes, suffixes, root words, base words) when they encounter unfamiliar words in their reading.
27. Teachers will learn how to extract meaning through context clues (definition, synonym, example, antonym, general) when they encounter unfamiliar words in their reading.
28. Teachers will understand the Matthew Effect and how it relates to a subsequent loss of interest in reading.
29. Teachers will explore a variety of strategies to increase students' vocabulary skills using fiction and nonfiction materials.

Instructional Media

- Online Discussions
- Online Engagement
- Online Collaboration
- Instructor Feedback
- Instructor Interaction
- Online Resources and Websites
- Supplemental Instructional Materials
- Printable Classroom Resources

Evaluation

- Test #1 (5% of final grade)
- Test #2 (5% of final grade)
- Test #3 (5% of final grade)
- Test #4 (5% of final grade)
- Test #5 (5% of final grade)
- Autobiography and Goals for the Course (10% of final grade)
- Article/Video Reflection (15% of final grade)
- Course Collaboration/Share Ideas with the Class (10% of final grade)
- Cumulative Assignment/Project: Design a Reading Comprehension Lesson Plan (20% of final grade)
- Culminating Practicum (20% of final grade)

Topical Outline

Unit One

- Overview of the Science of Reading
- Scarborough's Reading Rope
- The Road to Comprehension
- **Assignment #1**
  Write an autobiography including information about yourself, your grade level and what you specifically hope to learn about employing best science of reading principles to help students in grades 2-5 further their comprehension skills. Your autobiography should be a minimum of three paragraphs.
- **Test #1**

Unit Two

- The "Big 5" Components of Reading Comprehension
- Exploring Main Idea and Details with a Science of Reading Lens
- Main Idea and Details of Informational and Narrative Text
- **Assignment #2**
  As an educator, it is important to be aware of the research, studies, and professional work done in the field. In the course, you will find an article and video that are relevant to the specific course content. Read the article and then write an essay with your thoughts.
- **Test #2**

Unit Three

- An Introduction to Sequencing
- The Role of Sequence in Building Comprehension

- Sequencing with Fiction and Nonfiction Materials
- **Assignment #3**
  Online Discussion Board Participation/Engagement: Please post a tip, strategy, or idea that specifically relates to employing best science of reading principles to help students in grades 2-5 further their comprehension skills. The tip, strategy, or idea that you share needs to make a difference to other teachers in their own classrooms. Your assignment should be a minimum of three paragraphs and detailed enough for another teacher to follow easily. This is a great opportunity to share and collaborate with other teachers at your grade level around the country. Take time to review and respond to other postings that are relevant to your classroom population in order to gain effective ideas to use immediately in your classroom.
- **Test #3**

Unit Four

- Breaking Down the 5Ws and H Framework
- Building Comprehension with Questioning Strategies
- Comprehending Fiction and Nonfiction Using the 5Ws and H Framework and More!
- **Test #4**

Unit Five

- Building Comprehension with Inferences and Predictions
- The Impact of Prior Knowledge on Inferring and Predicting
- Student Challenges with Inferring and Predicting
- **Test #5**

Unit Six

- Understanding Vocabulary through a Science of Reading Lens
- Vocabulary's Role in Reading Comprehension
- Exploring Vocabulary with Fiction and Nonfiction Materials
- **Assignment #4**
  Design a reading comprehension lesson plan for one of the components of the "Big 5" of reading comprehension (main idea and details, sequencing, the 5Ws and H framework, inferring and predicting, and vocabulary), with explicit instructions in whatever capacity you may interact with students in grades 2-52 in terms of reading. The lesson should be unique and detailed enough so that another teacher can easily use it. The lesson must be based on best science of reading practices. Moreover, be sure to include a plan for assessment, such as a rubric or an explanation of how students will be evaluated on their understanding, either formally or informally. Follow the example in the assignment. To obtain full credit, be sure to follow all the parameters set forth in Assignment 4.
- **Assignment #5**
  The culminating practicum is a three-step process. (1) In the first assignment, you were asked what goals you had and what you hoped to learn from the course. Think back to

your original goals for this course. Write a minimum two-paragraph reflection specifically describing how what you learned can be used to help you reach those goal(s). (2) Next, write a minimum three-paragraph plan that specifically describes the ways in which you intend to implement a particular strategy you learned in this course into your own teaching situation. (3) Last, write a minimum two-paragraph reflection describing a student you have or have had in the past. Then, discuss how the strategies you learned in this course will specifically benefit that student as you put your plan into action.

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