Professional Development Institute

Flex Course Syllabus

Applying The Science of Reading Principles
in the Content Areas (6-12)

PDI Course Number: 155T02

UCSD Course Number: EDUC42493

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

Are you looking for ways to use evidence-based science of reading principles to assist your struggling readers? As every middle and high school teacher knows, there are a variety of texts that students interact and struggle with daily. This online course is designed to guide teachers through a variety of strategies and interventions, all of which are based on reading science so that students' overall comprehension is positively impacted. The course begins by demystifying the science of reading, and from there, takes a deep dive into both the word recognition strand and the language comprehension strand of Scarborough's Reading Rope. Teachers are guided through each strand so that they completely understand how decoding, background knowledge, vocabulary, language structures, verbal reasoning, and literacy knowledge all weave together to create the complex process known as reading. Teachers will also understand how to address the needs of struggling students through the exploration of root words, prefixes, suffixes, academic vocabulary, and direct instruction. Teachers will learn specific strategies to access students' background and cross-curricular knowledge as they work to improve their analytical reading and writing skills as they engage with complex texts. Finally, teachers will learn a variety of literacy routines that support content literacy, such as CLOZE activities, choral reading, text puzzles, and student-created tests. By the end of this course, teachers will gain increased confidence and

proficiency in effectively facilitating the science of reading principles to increase students' proficiency as they continue their journey in reading to learn.

Educational Outcomes

1. Teachers will understand what the principles of the science of reading.
2. Teachers will learn about the Simple View of Reading (SVR), and how reading instruction has evolved over time to a more active approach.
3. Teachers will learn how the basic components of reading (phonemic awareness, phonics, fluency, vocabulary, and comprehension) all contribute to the science of reading today.
4. Teachers will learn the brain science behind the science of reading.
5. Teachers will be introduced to Scarborough's Reading Rope, and they will understand how the lower strand (Word Recognition) is connected to the upper strand (Language Comprehension).
6. Teachers will learn the importance of focusing on the upper strand of Scarborough's Reading Rope in grades 6-12.
7. Teachers will learn how the brain processes memory, including how it is different in adolescents.
8. Teachers will learn the role that working memory plays in reading science and the crucial role that auditory memory plays in the reading process.
9. Teachers will learn about the important role that word recognition and decoding play in the reading process.
10. Teachers will learn strategies to help their adolescent students learn to recognize and decode words more effectively and efficiently.
11. Teachers will understand the important role that background information plays in reading science.
12. Teachers will learn how to activate students' background knowledge using strategies such as WebQuests, gallery walks, and station activities.
13. Teachers will learn strategies to help their adolescent students grow their vocabulary knowledge, including employing relevant partner texts, student choice boards, and games, just to name a few.
14. Teachers will learn about the Language Structures strand of Scarborough's Reading Rope, including how grammar, syntax, and semantics are related, but separate components to successful comprehension.
15. Teachers will learn about the Verbal Reasoning strand of Scarborough's Reading Rope.
16. Teachers will learn specific strategies to increase their students' verbal reasoning, including the use of literature circles, Depth of Knowledge (DOK) model, and making the mental leap from literal to figurative comprehension.
17. Teachers will learn about the Literacy Knowledge strand of Scarborough's Reading Rope, and the valuable role that text structure and text features play in reading comprehension.
18. Teachers will learn research-based strategies for addressing the needs of struggling readers in grades 6-12 through best practices involving roots, prefixes, and suffixes.
19. Teachers will learn research-based strategies for addressing the needs of struggling readers in grades 6-12 through best practices involving academic vocabulary.

20. Teachers will learn research-based strategies for addressing the needs of struggling readers in grades 6-12 through best practices involving direct instruction.
21. Teachers will learn strategies to access students' background knowledge and connect to cross-curricular content.
22. Teachers will understand what makes a text complex, and they will learn a variety of strategies based on reading science to support students as they work with complex texts.
23. Teachers will learn a variety of research-based strategies to support students' reading comprehension across the content areas, including such things as dialectical journals, text-mapping stations, and summarization.
24. Teachers will learn how to transform their interventions and accommodations by systematically employing the best practices involved in professional learning communities, or PLCs.
25. Teachers will learn a variety of instructional routines, all of which are based on reading science, to support content literacy throughout grades 6-12.

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 Three Activities (20% of final grade)
- Culminating Practicum (20% of final grade)

Topical Outline

Unit One

- What is the Science of Reading?
- Brain Science Behind the Science of Reading
- Demystifying the Science of Reading
- **Assignment #1**
  Write an autobiography including information about yourself, your grade level and what you specifically hope to learn about merging the science of reading into your own best teaching practices to help 6-12 students become better, more literate readers. Your autobiography should be a minimum of three paragraphs.
- **Test #1**

Unit Two

- Word Recognition and Decoding
- Language Comprehension and Background Knowledge
- Language Comprehension and Vocabulary
- **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

- Language Comprehension and Language Structures
- Language Comprehension and Verbal Reasoning
- Language Comprehension and Literacy Knowledge
- **Assignment #3**
  Online Discussion Board Participation/Engagement: Please post a tip, strategy, or idea that specifically relates to incorporating the science of reading best practices into your own teaching repertoire to help 6-12 students become better, more literate readers. 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

- Addressing the Needs of Struggling Readers: Root Words, Prefixes, and Suffixes
- Addressing the Needs of Struggling Readers: Academic Vocabulary
- Addressing the Needs of Struggling Readers: Direct Instruction
- **Test #4**

Unit Five

- Accessing Background and Cross-Curricular Knowledge
- Accessing Complex Texts
- Best Instructional Practices to Improve Analytical Reading and Writing
- **Test #5**

Unit Six

- Subject-Area Reading Comprehension
- Transforming Interventions through PLCs
- Instructional Routines to Support Content Literacy
- **Assignment #4**
- *Create an activity for three different areas of the five upper strands of Scarborough's Reading Rope (background knowledge, vocabulary, language structures, verbal reasoning, or literacy knowledge), with explicit instructions in whatever capacity you may interact with students in grades 6-12 in terms of reading. Each activity should be unique and comprehensive enough so that another teacher can easily use it. All activities must be based on best science of reading practices, and you may not duplicate any strand more than once throughout each of the three activities. Moreover, be sure to include a plan for assessment for each activity, such as a rubric or an explanation of how the activity will be evaluated through a formal or informal assessment. 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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