



Professional Development Institute

Flex Course Syllabus

Data-Driven Instruction (K-12)

PDI Course Number: 106T02

UCSD Course Number: EDUC40162

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 your students learning? Most teachers would emphatically answer “Yes!” without a moment’s hesitation. But, how exactly do you know this to be true? What kind of data do you have to back it up? This online course is designed for K-12 teachers who want to not only learn about the data-driven decision-making process, but who want to learn how to dig deep into the data to help them further drive their instruction for the benefit of all students. In addition to learning about the different phases of the data-driven decision-making process, teachers will also learn how to “read” and analyze data so that any newly-discovered trends and weaknesses can be turned into concrete learning and understanding. Teachers will also learn about the role they play in guiding students to perform their best, using data to support their instructional decisions. Teachers will learn how to effectively use data to support their grouping decisions so that student motivation is increased and essential parental partnerships are forged. Teachers will dive into several data-driven instructional best practices and will learn how to use the various types of data to their utmost advantage, employing technology as much as possible. By the end of this course, teachers will feel much more comfortable using data to make solid instructional decisions.

Educational Outcomes

1. Teachers will learn the differences between the two most general types of data — quantitative and qualitative — and how the process of using that data to differentiate instruction is at the heart of data-driven instruction.
2. Teachers will learn what makes data both reliable and valid, and how to differentiate between macro and microdata.
3. Teachers will learn about all of the steps involved in the data-driven decision-making process.
4. Teachers will learn about the various types of assessment (diagnostic, formative, summative, and benchmark) and will understand the role that each of them plays in the data-driven decision-making process.
5. Teachers will understand the difference between norm and criterion-referenced tests and will learn about the different question types that take place over the course of the assessment cycle.
6. Teachers will be introduced to the process of collecting data and will be given specific strategies for organizing various types of data.
7. Teachers will be introduced to the iterative steps of data analysis and will dig down into the process, learning specific strategies for analyzing data.
8. Teachers will learn how to use data to better inform their instruction.
9. Teachers will learn what an action plan is and how to create one to help guide them through the data-driven decision-making process.
10. Teachers will learn specific strategies for digging down into the data in order to find hidden data gems that can be helpful for driving future instruction.
11. Teachers will understand the purpose of data teams and will be introduced to the creation of same at the elementary, middle, and high school levels.
12. Teachers will learn how to use data to guide their whole group instruction.
13. Teachers will understand the role that data plays in their small group instruction.
14. Teachers will be shown how to dig deep into the data in order to better differentiate their instruction.
15. Teachers will learn about the importance of goal orientation theory and how it impacts student motivation.
16. Teachers will learn how data-driven instruction factors into a mastery-oriented classroom.
17. Teachers will learn how to set and initiate goals that are S.M.A.R.T. (specific, measurable, attainable, realistic, and time-bound).
18. Teachers will learn about data walls and how student privacy needs to be of the utmost importance when constructing a data wall.
19. Teachers will learn how to effectively use technology to create digital data walls.
20. Teachers will learn how to effectively make parents an ally in the data-driven decision-making process.
21. Teachers will understand the essential components of Response to Intervention (RTI) and how the RTI process differs in middle and high school.
22. Teachers will be introduced to blended learning and how that strategy can be used in data-driven instruction.

23. Teachers will be introduced to several technology-based formative assessment tools and will learn specific strategies for embedding technology into the data-driven decision-making process.
24. Teachers will have a basic understanding of the UbD (Understanding by Design) framework and how that framework uses data to more effectively and efficiently design curriculum to match students' learning needs.
25. Teachers will learn how the sharing of data analysis and experiences with a professional learning community can help to advance their own understanding of the data-driven decision-making process.

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: Respond to Two Data Scenarios (20% of final grade)
- Culminating Practicum (20% of final grade)

Topical Outline

Unit One

- Data and Teacher Effectiveness
- The Principles of Data-Driven Instruction
- Creating a School-Wide Culture of Data-Driven Instruction
- **Assignment #1**

Write an autobiography including information about yourself, your grade level and what you specifically hope to learn about applying the data-driven decision-making process in your classroom. Your autobiography should be a minimum of three paragraphs.

- **Test #1**

Unit Two

- Types of Data
- The Basics of Assessment
- The Process of Collecting Data
- **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

- Analyzing Data
- Using Data to Inform Instruction
- Finding Hidden Data Gems
- **Assignment #3**

Online Discussion Board Participation/Engagement: Please post a tip, strategy, or idea that specifically relates to effectively implementing the data-driven decision-making process and will 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 easily follow. 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

- Creating Data Teams
- Using Data to Guide Whole Group Instruction
- The Role of Data in Small Group Instruction
- **Test #4**

Unit Five

- Data-Driven Instruction and Student Motivation
- Displaying Data
- Demystifying Data to Form Stronger Parent Partnerships
- **Test #5**

Unit Six

- Response to Intervention
- The Role of Technology in Data-Driven Instruction
- Data-Driven Instruction Best Practices
- **Assignment #4**
Respond to each of the data scenarios presented in Assignment 4. Your response should consist of six detailed paragraphs. Be sure to refer to Assignment 4 for any and all specific requirements for each of the three parts of each scenario.
- **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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