Welcome to an Introduction to Socratic Seminar Leadership!

I have planned an exciting and challenging day for you. Here are some of the materials for you to review. This notebook includes:

1. Workshop Schedule
2. Elements of Socratic Seminars
3. Daily Seminar Texts:
   - **Main Seminar Text:** *Salvador Late or Early* by Sandra Cisneros
   - **Micro-Seminar Texts:**
     - *The Pledge of Allegiance* by William Shakespeare
     - *Two Speeches of Julius Caesar* by William Shakespeare
     - *The Coming Merger of Mind and Machine* by Ray Kurzweil
     - *From The Declaration of Independence*
     - *From Fish to Infinity* by Steven Strogatz
     - *From Elements by Euclid*

**Seminar Texts:** The enclosed readings are the heart of our day of seminars; these texts provide the common ground for our conversations. Please read each text carefully in advance. Seminar leaders often suggest reading the text as if it were a love letter. Extensive familiarity with the text is your “ticket” to join the Socratic dialogue.

**Micro Seminars:** You will have the opportunity in the afternoon to practice leading seminars in a small group.

**Writing and Reflection:** Although the Socratic Seminar is essentially a discourse approach to learning, the workshop also emphasizes the use of writing and reflection as additional tools for encouraging thoughtfulness in school programs.
## Socratic Seminar Leadership Training Workshop

### Today’s Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Activities</th>
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<tbody>
<tr>
<td>8:00 a.m.</td>
<td>Introduction to Socratic Seminars and Dialogue</td>
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<tr>
<td>9:15 a.m.</td>
<td>Main Seminar: Sandra Cisneros, &quot;Salvador, Late or Early&quot;</td>
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<tr>
<td>10:30 a.m.</td>
<td>Main Seminar Critique/Reflection</td>
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<tr>
<td>11:45 a.m.</td>
<td>Lunch</td>
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<tr>
<td>12:45 p.m.</td>
<td>Socratic Questioning/Text Selection</td>
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<tr>
<td>1:30 p.m.</td>
<td>Opening Questions/Micro-Seminar Preparation</td>
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<tr>
<td>2:00 p.m.</td>
<td>Micro-Seminars</td>
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<tr>
<td>3:45 p.m.</td>
<td>Reflection/Debrief</td>
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<tr>
<td>4:00 p.m.</td>
<td>Adjourn</td>
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### Notes:

1. Prepare for each seminar by reading the text *as you would read a love letter*.
2. Be ready to start at 8:00 a.m. and again at 12:45 p.m. We keep a tight schedule.
3. Expect few lectures, only learning by doing

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**Oscar Graybill, M.Ed**

Oscar has a wealth of experience and expertise in instructional strategies and professional development. A former San Diego City Schools’ EXCEL Outstanding Teacher and former California Mentor Teacher, Oscar’s 30 years as a high school English teacher in California and in Washington State taught him well what teachers want and need to improve their practice. Oscar’s participation on the Washington State Commission on Student Learning where he helped author the original Essential Learnings in Writing provides him with an understanding of educational standards that few have experienced.

As Director of Socratic Seminars International, Oscar knows how to train and coach teachers well. His trainings receive high marks from teachers. As former Director of Teaching and Learning for Walla Walla Public Schools, he understands the goals of schools and districts in providing outstanding professional development opportunities that address student engagement and critical thinking. Oscar’s recent work with Dialogue Facilitation and Professional Learning Communities helps schools and districts create the positive culture needed to transform teaching practices for all students.
**ELEMENTS OF A SOCRATIC SEMINAR**

Socrates believed that enabling students to think for themselves was more important than filling their heads with "right" answers. In a Socratic Seminar, participants seek deeper understanding of complex ideas through rigorously thoughtful dialogue, rather than by memorizing bits of information or meeting arbitrary demands for 'coverage.'

A Socratic Seminar fosters active learning as participants explore and evaluate the ideas, issues, and values in a particular text. A good seminar consists of four interdependent elements: (1) the text being considered, (2) the questions raised, (3) the seminar leader, and (4) the participants. A closer look at each of these elements helps explain the unique character of a Socratic Seminar.

**THE TEXT** Socratic Seminar texts are chosen for their richness in ideas, issues, and values and their ability to stimulate extended, thoughtful dialogue. A seminar text can be drawn from readings in literature, history, science, math, health, and philosophy or from works of art or music. A good text raises important questions in the participants' minds, questions for which there are no right or wrong answers. At the end of a successful Socratic Seminar, participants often leave with more questions than they brought with them.

**THE QUESTION** A Socratic Seminar opens with a question either posed by the leader or solicited from participants as they acquire more experience in seminars. An opening question has no right answer; instead it reflects a genuine curiosity on the part of the questioner. A good opening question leads participants back to the text as they speculate, evaluate, define, and clarify the issues involved. Responses to the opening question generate new questions from the leader and participants, leading to new responses. In this way, the line of inquiry in a Socratic Seminar evolves on the spot rather than being predetermined by the leader.

**THE LEADER** In a Socratic Seminar, the leader plays a dual role as leader and participant. The seminar leader consciously demonstrates habits of mind that lead to a thoughtful exploration of the ideas in the text by keeping the discussion focused on the text, asking follow-up questions, helping participants clarify their positions when arguments become confused, and involving reluctant participants while restraining their more vocal peers.

As a seminar participant, the leader actively engages in the group's exploration of the text. To do this effectively, the leader must know the text well enough to anticipate varied interpretations and recognize important possibilities in each. The leader must also be patient enough to allow participants' understandings to evolve and be willing to help participants explore non-traditional insights and unexpected interpretations.

Assuming this dual role of leader and participant is easier if the opening question is one which truly interests the leader as well as the participants.

**THE PARTICIPANTS** In a Socratic Seminar, participants share with the leader the responsibility for the quality of the seminar. Good seminars occur when participants study the text closely in advance, listen actively, share their ideas and questions in response to the ideas and questions of others, and search for evidence in the text to support their ideas.

Participants acquire good seminar behaviors through participating in seminars and reflecting on them afterward. After each seminar, the leader and participants discuss the experience and identify ways of improving the next seminar. Before each new seminar, the leader also offers coaching and practice in specific habits of mind that improve reading, thinking, and discussing. Eventually, when participants realize that the leader is not looking for right answers, but is encouraging them to think out loud and to exchange ideas openly, they discover the excitement of exploring important issues through shared inquiry. This excitement creates willing participants, eager to examine ideas in a rigorous, thoughtful manner.
Salvador with eyes the color of caterpillar, Salvador of the crooked hair and crooked teeth, Salvador whose name the teacher cannot remember, is a boy who is no one's friend, runs along somewhere in that vague direction where the homes are the color of bad weather, lives behind a raw wood doorway, shakes the sleepy brothers awake, ties their shoes, combs their hair with water, feeds them milk and corn flakes from a tin cup in the dim dark of the morning.

Salvador, late or early, sooner or later arrives with the string of younger brothers ready. Helps his mama, who is busy with the business of the baby. Tugs the arms of Cecilio, Arturito, makes them hurry, because today, like yesterday, Arturito has dropped the cigar box of crayons, has let go the hundred little fingers of red, green, yellow, blue, and nub of black sticks that tumble and spill over and beyond the asphalt puddles until the crossing-guard lady holds back the blur of traffic for Salvador to collect them again.

Salvador inside that wrinkled shirt, inside the throat that must clear itself and apologize each time it speaks, inside that forty-pound body of boy with its geography of scars, its history of hurt, limbs stuffed with feathers and rags, in what part of the eyes, in what part of the heart, in that cage of the chest where something throbs with both fists and knows only what Salvador knows, inside that body too small to contain the hundred balloons of happiness, the single guitar of grief, is a boy like any other disappearing out the door, beside the schoolyard gate, where he has told his brothers they must wait. Collects the hands of Cecilio and Arturito, scuttles off dodging the many schoolyard colors, the elbows and wrists crisscrossing, the several shoes running. Grows small and smaller to the eye, dissolves into the bright horizon, flutters in the air before disappearing like a memory of kites.
The Pledge of Allegiance

I pledge allegiance to the flag of the United States of America and to the republic for which it stands, one nation under God, indivisible, with liberty and justice for all.
Two Speeches of Julius Caesar

Julius Caesar:

Cowards die many times before their deaths;
The valiant never taste of death but once.
Of all the wonders that I yet have heard,
It seems to me most strange that men should fear,
Seeing that death, a necessary end,
Will come when it will come.  
Act II, Scene II

Julius Caesar:

I could be moved, if I were as you;
If I could pray to move, prayers would move me.
But I am constant as the northern star,
Of whose true-fixed and resting quality
There is no fellow in the firmament.
The skies are painted with unnumbered sparks,
They are all fire and every one doth shine,
But there’s but one in all doth hold his place.  
Act III, Scene I

The accelerating pace of technological progress means that our intelligent creations will soon eclipse us—and that their creations will eventually eclipse them.

Sometime early in this century the intelligence of machines will exceed that of humans. Within a quarter of a century, machines will exhibit the full range of human intellect, emotions and skills, ranging from musical and other creative aptitudes to physical movement. They will claim to have feelings and, unlike today’s virtual personalities, will be very convincing when they tell us so. By around 2020 a $1,000 computer will at least match the processing power of the human brain. By 2029 the software for intelligence will have been largely mastered, and the average personal computer will be equivalent to 1,000 brains.

Once computers achieve a level of intelligence comparable to that of humans, they will necessarily soar past it. For example, if I learn French, I can’t readily download that learning to you. The reason is that for us, learning involves successions of stunningly complex patterns of interconnections among brain cells (neurons) and among the concentrations of biochemicals known as neurotransmitters that enable impulses to travel from neuron to neuron. We have no way of quickly downloading these patterns. But quick downloading will allow our nonbiological creations to share immediately what they learn with billions of other machines. Ultimately, nonbiological entities will master not only the sum total of their own knowledge but all of ours as well.
From Declaration of Independence

“We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness.”
The best introduction to numbers I've ever seen—the clearest and funniest explanation of what they are and why we need them—appears in a Sesame Street video called 123 Count with Me. Humphrey, an amiable but dimwitted fellow with pink fur and a green nose, is working the lunch shift at the Furry Arms Hotel when he takes a call from a roomful of penguins. Humphrey listens carefully and then calls out their order to the kitchen: "Fish, fish, fish, fish, fish, fish." This prompts Ernie to enlighten him about the virtues of the number six.

Children learn from this that numbers are wonderful shortcuts. Instead of saying the word "fish" exactly as many times as there are penguins, Humphrey could use the more powerful concept of six.

As adults, however, we might notice a potential downside to numbers. Sure, they are great timesavers, but at a serious cost in abstraction. Six is more ethereal than six fish, precisely because it's more general. It applies to six of anything: six plates, six penguins, six utterances of the word "fish." It's the ineffable thing they all have in common.

Viewed in this light, numbers start to seem a bit mysterious. They apparently exist in some sort of Platonic realm, a level above reality. In that respect they are more like other lofty concepts (e.g., truth and justice), and less like the ordinary objects of daily life. Their philosophical status becomes even murkier upon further reflection. Where exactly do numbers come from? Did humanity invent them? Or discover them?

An additional subtlety is that numbers (and all mathematical ideas, for that matter) have lives of their own. We can't control them. Even though they exist in our minds, once we decide what we mean by them we have no say in how they behave. They obey certain laws and have certain properties, personalities, and ways of combining with one another, and there's nothing we can do about it except watch and try to understand. In that sense they are eerily reminiscent of atoms and stars, the things of this world, which are likewise subject to laws beyond our control ... except that those things exist outside our heads.

This dual aspect of numbers - as part heaven, part earth is perhaps their most paradoxical feature, and the feature that makes them so useful. It is what the physicist Eugene Wigner had in mind when he wrote of "the unreasonable effectiveness of mathematics in the natural sciences."

In case it's not clear what I mean about the lives of numbers and their uncontrollable behavior, let's go back to the Furry Arms. Suppose that before Humphrey puts in the penguins' order, he suddenly gets a call on another line from a room occupied by the same number of penguins, all of them also clamoring for fish. After taking both calls, what should Humphrey yell out to the kitchen? If he hasn't learned anything, he could shout "fish" once for each penguin. Or, using his numbers, he could tell the cook he needs six orders of fish for the first room and six more for the second room. But what he really needs is a new concept: addition. Once he's mastered it, he'll proudly say he needs six plus six (or, if he's a showoff, twelve) fish.

The creative process here is the same as the one that gave us numbers in the first place. Just as numbers are a shortcut for counting by ones, addition is a shortcut for counting by any amount. This is how mathematics grows. The right abstraction leads to new insight, and new power.

Before long, even Humphrey might realize he can keep counting forever.

Yet despite this infinite vista, there are always constraints on our creativity. We can decide what we mean by things like 6 and +, but once we do, the results of expressions like 6 + 6 are beyond our control. Logic leaves us no choice. In that sense, math always involves both invention and discovery: we invent the concepts but discover their consequences. As we'll see in the coming chapters, in mathematics our freedom lies in the questions we ask-and in how we pursue them—but not in the answers awaiting us.
From *The Elements*

Euclid

**Definitions**

1. A point is that which has no parts.
2. A line is length without thickness.
3. The ends of a line are points.
4. An angle is the inclination to one another of two lines which meet and do not lie on a straight line.
5. Suppose that two lines meet and form angles. If the angles next to one another are equal, the angles are called right angles.
6. Parallel straight lines are straight lines which, extended to any length in both directions, do not meet in either direction.

**Postulates**

1. A straight line can be drawn from any point to any other point.
2. A finite straight line can be produced continuously in a straight line.
3. A circle with any point as center and any size radius can be drawn.
4. All right angles are equal to one another.