Developed originally in Japan and adapted by Developmental Studies Center for use in schools across the United States, lesson study is a model of professional development in which teachers regularly gather to plan, observe, collect data on, analyze, and learn from research lessons they teach to their students. This kind of embedded practice-based study with colleagues has been common in some professions for decades—physicians and surgeons in teaching hospitals regularly discuss the diagnosis and treatment of particular patients in grand rounds, and lawyers typically study past cases in detail to inform their current work. Now teachers, too, have the opportunity to make such learning a regular part of their professional lives. Lesson study provides a powerful model for teacher growth that can ultimately transform public education, one classroom at a time.

What Is the Learning Lesson Study Course?

A Multi-year Learning Experience

The Learning Lesson Study Course is a facilitator-led learning experience that prepares teams of teachers (in grade-level or subject-area teams) to implement effective lesson study at their schools. Course activities include staff meetings, team meetings, and lesson study cycles spread over several years. Course materials are provided for each participating teacher and for the course facilitator.

Included here is the complete first cycle you can try with your colleagues. If you have more questions, please contact your rep.
Lesson Study Cycle 1
Learning the Process I

Audience
Lesson study team

Purpose
In Cycle 1, the team learns the lesson study process and practices data collection and analysis skills essential for lesson study. A choice of simply designed research lessons is provided to ensure a successful lesson observation and allow the team to become very familiar with lesson study procedures before getting into the more complex issues of lesson planning in subsequent cycles.

Before the Lesson Study Cycle

✔ Prepare for the Cycle

- Confirm the date, time, and location for Lesson Study Cycle 1. Also confirm classroom release time for team members with the principal.

- Two weeks before Cycle 1, fill out, photocopy, and distribute to each team member the “Teacher Researcher Preparations for Lesson Study Cycle 1” sheet (printed from the Facilitator’s Reproducible Materials CD-ROM or copied from the blackline master on page 70).

- Read the following in this manual:
  - This protocol for Lesson Study Cycle 1
  - “Learning Scan” section in Appendix 1, “Data Compilation and Analysis Guide” (pages 338–344)
  - Appendix 2, “Discussion Facilitation Techniques” (pages 357–358)

- Read the research lesson selected by the team during the “Team Meeting: Preparing for Lesson Study.” Also read the Facilitator Notes for this lesson in the Facilitator’s Annotated Research Lessons. Do the lesson activity so you will be thoroughly familiar with the academic and social content when you facilitate this cycle.
Facilitator Note
All slides and handouts are provided on the CD-ROM. They also appear as blackline masters on pages 71–77.

☑ Gather Materials

- The following slides, which are provided on the Facilitator’s Reproducible Materials CD-ROM:
  - “Research Focus for Cycles 1 and 2” (Slide 1)
  - “Cycle 1, Phase 1: Lesson Planning” (Slide 2)
  - “Learning Scan” (Slides 3–4)
  - “Cycle 1, Phase 2: Observation and Data Collection” (Slide 5)
  - “Cycle 1, Phase 3: Data Analysis and Debrief” (Slide 6)
  - “Reflecting on Lesson Study Cycle 1” (Slide 7)
- Handout of all slides listed above for each teacher researcher (printed from the Facilitator’s Reproducible Materials CD-ROM or copied from the blackline masters on pages 71–77)
- “Team Norms for Lesson Study” chart (from previous team meeting)
- Chart of blank “Learning Scan,” either created by hand from the blackline masters on pages 73–74 or printed in poster size from the Facilitator’s Reproducible Materials CD-ROM
- Materials for the selected research lesson (for example, read-aloud books, math manipulatives, handouts, pencils); enough materials so each pair of teacher researchers can share a set during Step 3 of Phase 1
- Small bag or bowl and slips of paper for random drawing of names (see Step 6 of Phase 1)
- Blank chart paper and markers
- Pads of large and small self-stick notes
- Tape or push pins
- Highlighters in different colors
- Scrap paper for notes
Phase 1: Lesson Planning

3–4 hours

Outline the Lesson Planning Process

- Welcome the teacher researcher team to their first lesson study cycle, and distribute the handout.

- Show and read the “Research Focus for Cycles 1 and 2” slide (Slide 1). Remind the team that this is the research focus for Cycle 1.

- Show and read the “Cycle 1, Phase 1: Lesson Planning” slide (Slide 2).

- Explain that your role will be to guide the team through the cycle and to encourage their thinking and interaction. Explain that you will follow a protocol, or format, that will take the team through a predictable structure each time they do lesson study.

Review the Team Norms

- Remind the team that they agreed previously on norms for how they want to interact. Read the “Team Norms for Lesson Study” chart aloud. Ask and briefly discuss:

  Q Do the charted norms still feel right for your team? Why or why not?

  Q What revisions or additions, if any, do we want to make to the norms?

- Make any revisions agreed upon by the team. Keep the chart posted during this cycle and refer to it, as necessary.

Experience the Research Lesson

- Remind the team that they selected a research lesson provided in the course to use in Cycle 1. Review that the Learning Lesson Study Course provides simply designed research lessons to use in Cycles 1 and 2 to help the participants learn the lesson study process and essential data collection and analysis skills before getting into the more complex work of planning and researching their own lessons.

- Explain that, in a moment, you will ask a volunteer to teach the lesson, as written, to the team. Give the team a few minutes to quietly scan through the written lesson.
her own record sheet. Encourage the team to generate statements that describe observable student actions (for example, “Students will write the correct percent and fraction on each circle puzzle piece,” and “Students will agree in pairs before they write, and either partner will be able to report the pair’s thinking”).

If necessary, probe to elicit a range of observable student behaviors by asking questions such as:

Q What might [listening/collaborating/thinking] look like in the students?

Q What standards are addressed in this lesson? What will we see the students say or do to let us know they’re meeting or approaching these standards?

Q If the work in this step is [easy/at the right level/too difficult] for a student, what might we see that student say or do?

After talking through all the lesson steps, ask the team to review the possible student responses listed in the second column and think about:

Q For which of these student responses, if any, might you want to intervene? What might you do to intervene?

Q What might be the pros and cons of intervening at this point, in terms of the students’ thinking and learning?

As a team, agree on which student responses, if any, they will intervene on and what they will do to intervene. Record these in the fourth column of the “Learning Scan” chart as each team member copies this information on his or her own record sheet.

Prepare to Collect Data

• Explain that the teacher researchers will each be assigned a group of students to observe for the entire lesson. Each time they observe a predicted behavior among the students in their group, they will make a tally mark next to that behavior on their “Learning Scan” record sheet. They will also record in the second column any additional behaviors they observe, tallying if it occurs multiple times.

• Explain that the team will compile and analyze this data after the lesson.
Identify the Teacher and Classroom for the Research Lesson

- Randomly select a team member to teach the research lesson (for example, by drawing a name out of a bag). Point out that, over time, all team members will have a turn at teaching a research lesson.
- Remove the selected teacher’s name from the next drawing and randomly select the classroom in which the research lesson will be taught and observed.
- Ask the teacher of the selected classroom to describe the room’s arrangement and where the students will be during different parts of the lesson. If possible, agree on which students each team member will observe and how they will move to observe the students during the lesson. Plan to have the students wear nametags so they are easily identified by both the teacher and the observers.

Discuss any other preparations students in the designated classroom will need, including any prerequisite instruction (such as a read-aloud and discussion), who will provide it, and when.

Schedule the Research Lesson

- Confirm the date, time, and locations for the research lesson observation and debriefing sessions (Phases 2 and 3 of this cycle). If necessary, consult with the principal to secure classroom release time for these sessions.

Reflect on the Lesson Study Process

- Briefly review the “Cycle 1, Phase 1: Lesson Planning” slide (Slide 2), then ask and briefly discuss:

  Q We’ve just completed Phase 1, Lesson Planning, in our first lesson study cycle. What thoughts or questions do you have about our process so far?
Phase 2: Observation and Data Collection

About 1 hour

1. **Outline the Observation and Data Collection Process**
   - On the day of the research lesson, gather the team 15–20 minutes before the lesson. Show and read aloud the “Cycle 1, Phase 2: Observation and Data Collection” slide (Slide 5).

2. **Summarize the Research Lesson**
   - Briefly review that the designated teacher will teach the research lesson, exactly as planned, while other team members collect data. Ask the designated teacher to briefly summarize the steps of the lesson, and clarify any questions, if needed.
   - Emphasize that, because this is the team’s research lesson, the designated teacher should feel free to pause at any time to refer to the lesson plan so he or she can teach it with fidelity.

3. **Review and Prepare for Data Collection**
   - Briefly review the “Learning Scan” record sheet together. Review which students (or groups) each teacher researcher will observe so every student is observed for the entire lesson.
   - Explain that, during the lesson observation, the teacher researchers should:
     - Take positions around the classroom that allow for easy observation and hearing of their identified group of students.
     - Avoid interacting with the students, the teacher, or other team members during the research lesson.
     - Focus on the students, not the teacher.
   - Explain that, after the observation, team members should refrain from discussing the lesson until they gather for the Data Analysis and Debrief session.

**Facilitator Note**
- You might point out that there is a natural inclination to watch the teacher while he or she is talking, modeling, or reading aloud. Emphasize that it is essential during these times to keep focusing on the students.
4 **Observe the Research Lesson and Collect Data**

- During the lesson observation, watch the teacher, the students, and the teacher researchers. As the facilitator, your tasks during the lesson observation are to note:
  - Any places where the teacher deviates from the lesson plan, and what he or she does
  - Unanticipated student responses and where they occur
  - Whether the teacher researchers are able to observe the students, rather than the teacher

5 **Transition to the Data Analysis and Debrief Phase**

- At the end of the lesson, make sure the teacher collects any written student work.
- Return to the designated meeting room to do the Data Analysis and Debrief session. If necessary, remind the teacher researchers to refrain from discussing the lesson until the team gathers for the Data Analysis and Debrief session.

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### Phase 3: Data Analysis and Debrief

⏰ **2–3 hours**

1 **Outline the Data Analysis and Debrief Process**

- Take a moment to acknowledge and thank the teacher who taught the research lesson.
- Show and read aloud the “Cycle 1, Phase 3: Data Analysis and Debrief” slide (Slide 6). Explain that this session is structured to help them objectively describe and understand the data first, before analyzing or interpreting it and discussing its implications.
- Make sure the “Team Norms for Lesson Study” chart is posted where everyone can see it.
**Compile and Chart the Data**

- Have the team turn to the “Learning Scan” section in Appendix 1, “Data Compilation and Analysis Guide,” of the *Teacher’s Coursebook* (pages 338–344 in this manual). Explain that this section describes how to use this data collection instrument, including how to collect, compile, and analyze the data. Give the team several minutes to scan these pages.

After a moment, point out that the question this instrument tries to answer is, *What do the students say and do?* Ask and briefly discuss:

- *Q* Let’s look at the data for lesson Steps 1 and 2 on the “Sample Compiled Data and Questions” for the “Learning Scan.” What are some things students said or did during these two steps of the lesson?

- *Q* What are some things students said or did during Steps 3 and 4 of this lesson?

- Explain that the team will now compile its data from the “Learning Scan” record sheets. Ask each team member to report the number of tally marks for each behavior observed. Add the reported tally marks for each behavior and record the sum in the third column of the “Learning Scan” chart. Make sure to add any other behaviors that were observed, along with the sum of their tallies.

During this time, have the teacher who taught the lesson review his or her own “Learning Scan” record sheet and jot down notes about behaviors he or she observed and any other reflections about the lesson to share in Step 4.

**Describe the Data Objectively**

- Ask team members (including the teacher who taught the lesson) to quietly study the charted data, jotting notes about things they notice. Encourage them to describe the data objectively (“Twelve students turned and talked about the topic with their partner”), and refrain from interpreting the data (“Twelve students were interested in the topic”) until Step 4.

- After sufficient time to jot notes, pair team members and have them share and discuss their notes.

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**Facilitator Note**

Refer to the “Learning Scan” section of Appendix 1, “Data Compilation and Analysis Guide” (pages 338–344) to see how to compile and discuss the data from this instrument.
Analyze and Discuss Implications of the Data

- After ample time for partners to talk, gather the team and facilitate a discussion using questions such as:

  Q What are some things we can say, objectively, about the data we’ve collected? What do the data tell us about the students’ thinking?

  Q What in the instruction might have contributed to students responding in this way?

  Q Were the purposes of the lesson met? If so, how? If not, what happened instead?

  Q (Ask the teacher who taught the lesson:) What thoughts or reflections do you have as the teacher who taught the lesson?

  Q What evidence do you see of students meeting or approaching the standards identified in this lesson?

  Q (Pass around and review any student work.) What evidence (or lack of evidence) of student [thinking/understanding] do we see in this student work?

  Q How might we revise this lesson to reteach it in another class? (Take a moment to record any revisions on the written lesson.)

  Q Based on these data, what might make sense for the next lesson for these students? Why?

Chart Qualities of Good Lessons

- First in pairs, then as a team, discuss:

  Q What does this lesson study experience reveal to you about the qualities of good lessons?

Record the team’s ideas on a sheet of chart paper labeled “Qualities of Good Lessons.” Explain that the team will keep the chart and add to it as they continue lesson study in the coming months.
Invite the team members to teach (or reteach) the lesson themselves, incorporating any qualities of good lessons and/or other revisions agreed upon by the group. If they do so, suggest that they find a time to talk to one another about how the lesson worked and any new insights they gained.

**Reflect on Our Learning and Interaction**

- Show the “Reflecting on Lesson Study Cycle 1” slide (Slide 7) and ask the team members to turn to it in their handout. Read the directions aloud and ask them to individually reflect and jot notes. After a few minutes, ask and briefly discuss:
  
  Q. What issues of teaching and learning came up for you during this lesson study cycle?

  Q. What is one thing you want to continue to think about between now and our next lesson study cycle?

  Q. (Refer to the “Team Norms for Lesson Study” chart.) How do you feel the team did working together during this lesson study cycle? What might you want to do [the same way/differently] the next time?

**Reflect on the Lesson Study Process**

- Briefly review the “Research Focus for Cycles 1 and 2” slide (Slide 1), as well as the slides for “Cycle 1, Phase 1: Lesson Planning,” “Cycle 1, Phase 2: Observation and Data Collection,” and “Cycle 1, Phase 3: Data Analysis and Debrief” (Slides 2, 5, and 6). Ask and briefly discuss:

  Q. What thoughts or questions do you have about the lesson study process?

  Q. What thoughts or questions do you have about the data collection and analysis skills you practiced today?

- Explain that the team will continue to learn about the process and practice important skills in Lesson Study Cycle 2. Explain that you will be in touch before the next cycle to help the team choose its next research lesson and begin planning the cycle.

- Invite the team members to thank one another for collaborating and taking risks during this lesson study cycle. Encourage them to continue to discuss the issues that arose for them between now and the next lesson study cycle.

**Facilitator Note**

As team members write, take the opportunity to jot your own reflections about your facilitation of this cycle, if you wish.

Save the “Team Norms for Lesson Study” and “Qualities of Good Lessons” charts for use in all future cycles.
After the Lesson Study Cycle

Plan for Lesson Study Cycle 2

- Set the date, time, and location for Lesson Study Cycle 2. Work with the principal to arrange classroom release time for team members.
- Two to three weeks before Cycle 2, begin the tasks listed in the “Before the Lesson Study Cycle” section of the Lesson Study Cycle 2 protocol (page 79).
Handout for

“Lesson Study Cycle 1: Learning the Process I”
Teacher Researcher Preparations for Lesson Study Cycle 1

Dear Teacher Researcher,

Lesson Study Cycle 1 of the Learning Lesson Study Course has been scheduled as follows:

**Phase 1: Lesson Planning**
- Date: ________________  Time: __________  Location: ________________

**Phase 2: Observation and Data Collection**
- Date: ________________  Time: __________  Location: (to be determined)

**Phase 3: Data Analysis and Debrief**
- Date: ________________  Time: __________  Location: ________________

Please come to the Lesson Planning session having completed the following task:

- In the “Lesson Study Cycle 1” tabbed section of your Teacher’s Coursebook, read and fully understand the research lesson selected by your team during the “Preparing for Lesson Study” team meeting.

Please bring your Teacher’s Coursebook with you to Lesson Study Cycle 1. I look forward to working with you!

Best wishes,

Learning Lesson Study Course Facilitator
Research Focus for Cycles 1 and 2

Our focus for Cycles 1 and 2 is to learn the lesson study process, become familiar with the related planning and data collection instruments, and practice the skills needed to use these tools to study student learning and behavior.
Cycle 1, Phase 1: Lesson Planning

We will follow these steps during this phase:

1. Outline the Lesson Planning process.
2. Review the team norms.
3. Experience the research lesson.
4. Prepare to teach the research lesson.
5. Prepare to collect data.
6. Identify the teacher and classroom for the research lesson.
7. Schedule the research lesson.
8. Reflect on the lesson study process.
Learning Scan:
*What do the students say and do?*

Date of lesson:__________  Teacher:____________
Classroom:______________  Total # of students:_______

Lesson Purpose(s): In this lesson, the students will

<table>
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<tr>
<th>Lesson step</th>
<th>What might the students say or do?</th>
<th>(Tally during observation)</th>
<th>Interventions</th>
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Learning Scan: *What do the students say and do?* (continued)
Cycle 1, Phase 2: Observation and Data Collection

We will follow these steps during this phase:

1. Outline the Observation and Data Collection process.
2. Summarize the research lesson.
3. Review and prepare for data collection.
4. Observe the research lesson and collect data.
5. Transition to the Data Analysis and Debrief phase.
Cycle 1, Phase 3: Data Analysis and Debrief

We will follow these steps during this phase:

1. Outline the Data Analysis and Debrief process.
2. Compile and chart the data.
3. Describe the data objectively.
4. Analyze and discuss implications of the data.
5. Chart qualities of good lessons.
6. Reflect on our learning and interaction.
7. Reflect on the lesson study process.
Reflecting on Lesson Study Cycle 1

Q What thoughts do you have about the lesson study process you’ve experienced in this cycle?

Q What issues of teaching and learning came up for you during this lesson study cycle?

Q What is one thing you want to continue to think about between now and our next lesson study cycle?