

Appendix D

Teacher Implementation Logs

Teacher Implementation Log: Module 1

Module 1 of the Toolkit centered on the first of three recommendations for instructional practices. The first recommendation focused on **the use of solved problems to engage students in analyzing algebraic reasoning and strategy**. Now that you have completed the Plan-Do-Study-Act (PDSA) cycle for Module 1, we'd like to learn about what went well and what was challenging with implementing this first recommendation and using the related Toolkit materials.

- We expect it to take you about 15-20 minutes to complete this implementation log. Please complete this log by [DATE].
- As a teacher who is receiving access to the Toolkit, your insights are valuable, and we hope you will take the time to complete this log. You may skip any questions you are not comfortable answering; however, we hope that you answer as many as you can.
- The information you provide in this implementation log will help us understand how teachers used the resources and recommendations in their classrooms as well as inform future improvements to the Toolkit. Any reporting prepared for this study will summarize findings across participating districts and will not associate responses with a specific district, school or individual.
- All data collected for this study will be kept confidential, except as required by law. The researchers conducting this study follow the confidentiality and data protection requirements of the U.S. Department of Education's Institute of Education Sciences (The Education Sciences Reform Act of 2002, Title I, Part E, Section 183).
- If you complete an implementation log for each of the four Toolkit modules, you will receive a \$40 gift card to thank you for your time and effort.

q START IMPLEMENTATION LOG

Section I: Setting the stage activities and resources

In this first section, we'd like to learn about your experience participating in the "Setting the Stage" activities and your use of the related resources. As a reminder, the "Setting the Stage" activities took place before Module 1 and provided teachers with an overview of the recommendations and the PDSA cycle.

[ALL]

[PROGRAMMER: Allow the following definition to display when hovered over [Setting the Stage](#): "The session in which the facilitator introduces teachers to the Toolkit and its resources."]

I.1. How useful was the "Setting the Stage" participant workbook for introducing you to the Toolkit content? *Mark one only*

0. I did not receive the Setting the Stage participant workbook
1. I received the Setting the Stage workbook but did not use it
2. Not useful
3. Somewhat useful
4. Useful
5. Very useful

[ALL]

I.2. How useful were the “Setting the Stage” activities in helping you understand the PDSA cycle? *Mark one only*

1. Not useful
2. Somewhat useful
3. Useful
4. Very useful

[ALL]

I.3. How useful were the “Setting the Stage” activities in helping you learn about the Toolkit resources. These resources include the self-reflection tools, classroom visitation tools, student survey and knowledge assessment tools.

1. Not useful
2. Somewhat useful
3. Useful
4. Very useful

[ALL]

I.4. Excluding time spent in the “Setting the Stage” PLC sessions, how many hours did you spend using Toolkit resources associated with the “Setting the Stage” activities **outside of your usual working hours**? *Please write your response below*

[ALL]

I.5 Please describe any improvements you suggest for the Setting the Stage materials and activities (e.g., the facilitator guide, PLC session activities).

In this section, we'd like to learn about which Toolkit materials you used during Module 1 and how useful these materials were for implementing the first recommendation in your classroom. As a reminder, the **first recommendation focused on the use of solved problems to engage students in analyzing algebraic reasoning and strategy.**

Module 1 Independent non-PLC session work

[ALL]

II.1. Overall, how much of the independent non-PLC session work did you complete for Module 1? This type of work includes completing the PDSA cycle activities, planning instructional assessment activities, delivering lessons utilizing the instructional strategies, collecting data using tools from the Toolkit, and subsequently refining instructional approaches based on data collected and decisions made using the PDSA process. *Mark one only*

0. None
1. A little
2. Some
3. Most
4. All

[IF II.1 = 0 GO TO II.5]

[IF II.1=1,2,3 OR 4]

[PROGRAMMER: Allow the following definition to display when hovered over independent non-PLC session work: "The tasks teachers are asked to complete on their own to take action on what they are learning. This includes completing the PDSA cycle activities, planning instructional and assessment activities aligned with toolkit resources, delivering lessons utilizing instructional strategies highlighted in the toolkit, collecting data using the tools from the toolkit, and refining instructional approaches based on data collected and decisions made using the PDSA process."]

II.2. On average, how long would you spend completing an independent non-PLC session work activity in this module? *Mark one only*

1. 15 minutes or less
2. 16 – 30 minutes
3. 31 – 45 minutes
4. 46 minutes or more

[IF II.1=1,2,3 OR 4]

[PROGRAMMER: Allow the following definition to display when hovered over first recommendation: "Using solved problems to engage students in analyzing algebraic reasoning and strategy."]

II.3. How useful was the independent non-PLC session work for implementing the first recommendation in your classroom? *Mark one only*

1. Not useful
2. Somewhat useful
3. Useful
4. Very useful

[IF II.1=1,2,3 OR 4]

II.4. Excluding time spent in the PLC sessions, how many hours did you spend using Toolkit resources associated with the first recommendation **outside of your usual working hours**? *Please write your response below*

Module 1 PLC sessions

[ALL]

II.5. How useful were the PLC sessions for implementing the first recommendation in your classroom?

Mark one only

- 0. Not applicable, I did not attend any PLC sessions for Module 1
- 1. Not useful
- 2. Somewhat useful
- 3. Useful
- 4. Very useful

Module 1 Resources

[ALL]

[PROGRAMMER: Allow the following definitions to display when hovered over the below terms:

- PDSA tool: “Helps teachers implement Toolkit practices in their classroom and study the effect on their instructional practice and student learning.”
- Teacher self-reflection tool: Helps teachers reflect on their use of the recommendation’s instructional strategies.”
- Visitation tool: “Gathers feedback from a colleague on teacher implementation of the recommendation’s instructional practices.”
- Student survey: “Helps teachers assess students’ engagement and mindset in math class and whether the recommendation’s instructional strategies have improved their math ability and learning.”
- Student knowledge assessment tool: “Helps teachers assess student mastery of algebra.”
- Module 1 teacher participant workbook: “Provides teachers with an overview of the Toolkit and resources they will use as they work through the learning modules and activities for the first recommendation.”]

II.6. Thinking back through Module 1, how useful were the following resources for implementing the first recommendation in your classroom? We recognize that you may not have used all of the resources during Module 1 implementation - when that is the case, just note that you did not use the resource.

Mark one for each item

Resource	Usefulness of each resource				
II.6a. PDSA tool (Appendix A)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
II.6b. Teacher self-reflection tool (Appendix B1)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
II.6c. Visitation tool (Appendix B2)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
II.6d. Student survey (Appendix B3)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
II.6e. Student knowledge assessment tool (Appendix B4)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
II.6f. Module 1 teacher participant workbook	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use

[ALL]

II.7. Did you attend any of the office hours with the Toolkit development team during Module 1? *Mark one only*

1. Yes
0. No

[ALL]

II.8. Please describe any improvements that could be made to any of the Module 1 toolkit resources that would help you better use the resources or implement the first recommendation in your classroom.

Section III. Use of the first recommendation and its related instructional strategies

There are three instructional strategies that the toolkit suggests teachers use to carry out the first recommendation. In this section, we'd like to learn what implementation of the first recommendation and use of these instructional strategies looked like in your classroom.

[ALL]

III.1. Thinking about the first recommendation, **using solved problems to engage students in analyzing algebraic reasoning and strategy**, please answer the following questions.

III.1a. How well do you understand the first recommendation? <i>Mark one only</i>	<ol style="list-style-type: none">1. Not at all2. Not very well3. Well4. Very well
III.1b. How prepared did you feel to integrate the first recommendation into your lesson plans? <i>Mark one only</i>	<ol style="list-style-type: none">1. Very unprepared2. Unprepared3. Prepared4. Very prepared
III.1c. How prepared did you feel to implement the first recommendation in your classroom? <i>Mark one only</i>	<ol style="list-style-type: none">1. Very unprepared2. Unprepared3. Prepared4. Very prepared

[ALL]

III.2.

Instructional strategies for implementing the first recommendation	On average, for each algebra class of students you teach, how many times did you use the instructional strategies in your algebra class during Module 1 (the time between the first and last PLC sessions of the module)? Mark one for each row				
III.2a. Have students discuss solved problem structures and solutions to make connections among strategies and reasoning.	0=Never	1=1-2 times	2=3-5 times	3=6-8 times	4=9 or more times
III.2b. Select solved problems that reflect the lesson's instructional aim, including problems that illustrate common errors.	0=Never	1=1-2 times	2=3-5 times	3=6-8 times	4=9 or more times
III.2c. Use whole-class discussions, small-group work, and independent practice activities to introduce, elaborate on, and practice working with solved problems.	0=Never	1=1-2 times	2=3-5 times	3=6-8 times	4=9 or more times

[ALL]

III.3. Do you plan to use the instructional strategies associated with the first recommendation in your classroom in the future? *Mark yes or no for each item*

Instructional strategy	Do you plan to use this instructional strategy in your classroom in the future?
III.3a. Have students discuss solved problem structures and solutions to make connections among strategies and reasoning.	1=Yes 0=No 2=Unsure
III.3b. Select solved problems that reflect the lesson's instructional aim, including problems that illustrate common errors.	1=Yes 0=No 2=Unsure
III.3c. Use whole-class discussions, small-group work, and independent practice activities to introduce, elaborate on, and practice working with solved problems.	1=Yes 0=No 2=Unsure

[ALL]

III.4. To what extent do you feel your ability to implement the first recommendation and related instructional strategies increased since starting Module 1? *Mark one only*

1. Not at all
2. Very little
3. Somewhat
4. A lot

[ALL]

III.5. Overall, what went well with implementing the first recommendation and related instructional strategies in your classroom? *Please describe*

[ALL]

III.6. Overall, what was challenging with implementing the first recommendation and related instructional strategies in your classroom? *Please describe*

[ALL]

III.7. How did you attempt to overcome the challenges you encountered when implementing the first recommendation and related instructional strategies. *Please describe*

Thank you for completing the Module 1 Implementation Log!

END OF IMPLEMENTATION LOG

Teacher Implementation Log: Module 2

Module 2 of the Toolkit centered on the second of three recommendations for instructional practices. The second recommendation focused on **teaching students to utilize the structure of algebraic representations**. Now that you have completed the Plan-Do-Study-Act (PDSA) cycle for Module 2, we'd like to learn about what went well and what was challenging with implementing this second recommendation and using the related Toolkit materials.

- We expect it to take you about 15-20 minutes to complete this implementation log. Please complete this log by [DATE].
- As a teacher who is receiving access to the Toolkit, your insights are valuable, and we hope you will take the time to complete this log. You may skip any questions you are not comfortable answering; however, we hope that you answer as many as you can.
- The information you provide in this implementation log will help us understand how teachers used the resources and recommendations in their classrooms as well as inform future improvements to the Toolkit. Any reporting prepared for this study will summarize findings across participating districts and will not associate responses with a specific district, school or individual.
- All data collected for this study will be kept confidential, except as required by law. The researchers conducting this study follow the confidentiality and data protection requirements of the U.S. Department of Education's Institute of Education Sciences (The Education Sciences Reform Act of 2002, Title I, Part E, Section 183).
- If you complete an implementation log for each of the four Toolkit modules, you will receive a \$40 gift card to thank you for your time and effort.

q START IMPLEMENTATION LOG

Section I: Module 2 implementation and usefulness of the resources

In this section, we'd like to learn about which Toolkit materials you used during Module 2 and how useful these materials were for implementing the second recommendation in your classroom. As a reminder, **the second recommendation focused on teaching students to utilize the structure of algebraic representations**.

Module 2 Independent non-PLC session work

[ALL]

I.1. Overall, how much of the independent non-PLC session work did you complete for Module 2? This type of work includes completing the PDSA cycle activities, planning instructional assessment activities, delivering lessons utilizing the instructional strategies, collecting data using tools from the Toolkit, and subsequently refining instructional approaches based on data collected and decisions made using the PDSA process. *Mark one only*

0. None
1. A little
2. Some
3. Most
4. All

[IF I.1=0, GO TO I.5]

[IF I.1=1,2,3 OR 4]

[PROGRAMMER: Allow the following definition to display when hovered over independent non-PLC session work: “The tasks teachers are asked to complete on their own to take action on what they are learning. This includes completing the PDSA cycle activities, planning instructional and assessment activities aligned with toolkit resources, delivering lessons utilizing instructional strategies highlighted in the toolkit, collecting data using the tools from the toolkit, and refining instructional approaches based on data collected and decisions made using the PDSA process.”]

I.2. On average, how long would you spend completing an independent non-PLC session work activity in this module? *Mark one only*

1. 15 minutes or less
2. 16 – 30 minutes
3. 31 – 45 minutes
4. 46 minutes or more

[IF I.1=1,2,3, OR 4]

[PROGRAMMER: Allow the following definition to display when hovered over second recommendation: “Teaching students to utilize the structure of algebraic representations.”]

I.3. How useful was the independent non-PLC session work for implementing the second recommendation in your classroom? *Mark one only*

1. Not useful
2. Somewhat useful
3. Useful
4. Very useful

[IF I.1=1,2,3, OR 4]

I.4. Excluding time spent in the PLC sessions, how many hours did you spend using Toolkit resources associated with the second recommendation **outside of your usual working hours**? *Please write your response below*

Module 2 PLC sessions

[ALL]

1.5. How useful were the PLC sessions for implementing the second recommendation in your classroom? *Mark one only*

0. Not applicable, I did not attend any PLC sessions for Module 2.
1. Not useful
2. Somewhat useful
3. Useful
4. Very useful

Module 2 Resources

[ALL]

[PROGRAMMER: Allow the following definitions to display when hovered over the below terms:

- [PDSA tool](#): "Helps teachers implement Toolkit practices in their classroom and study the effect on their instructional practice and student learning."
- [Teacher self-reflection tool](#): Helps teachers reflect on their use of the recommendation's instructional strategies."
- [Visitation tool](#): "Gathers feedback from a colleague on teacher implementation of the recommendation's instructional practices."
- [Student survey](#): "Helps teachers assess students' engagement and mindset in math class and whether the recommendation's instructional strategies have improved their math ability and learning."
- [Student knowledge assessment tool](#): "Helps teachers assess student mastery of algebra."
- [Module 2 teacher participant workbook](#): "Provides teachers with an overview of the Toolkit and resources they will use as they work through the learning modules and activities for the second recommendation."]

I.6. Thinking back through Module 2, how useful were the following resources for implementing the second recommendation in your classroom? We recognize that you may not have used all of the resources during Module 2 implementation – when that is the case, just note that you did not use the resource. *Mark one for each item*

Resource	Usefulness of each resource				
I.6a. PDSA tool (Appendix A)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
I.6b. Teacher self-reflection tool (Appendix C1)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
I.6c. Visitation tool (Appendix C2)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
I.6d. Student survey (Appendix C3)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
I.6e. Student knowledge assessment tool (Appendix C4)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
I.6f. Module 2 teacher participant workbook	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use

[ALL]

I.7. Did you attend any of the office hours with the Toolkit development team during Module 2? *Mark one only*

1. Yes
0. No

[ALL]

I.8. Please describe any improvements that could be made to any of the Module 2 toolkit resources that would help you better use the resources or implement the second recommendation in your classroom.

Section II. Use of the instructional strategies for implementing the second recommendation

There are three instructional strategies that the toolkit suggests teachers use to carry out the second recommendation. In this section, we'd like to learn what implementation of the second recommendation and use of these instructional strategies looked like in your classroom.

[ALL]

II.1. Thinking about the second recommendation, **teaching students to utilize the structure of algebraic representations**, please answer the following questions.

II.1a. How well do you understand the second recommendation? <i>Mark one only</i>	<ol style="list-style-type: none"> 1. Not at all 2. Not very well 3. Well 4. Very well
II.1b. How prepared did you feel to integrate the second recommendation into your lesson plans? <i>Mark one only</i>	<ol style="list-style-type: none"> 1. Very unprepared 2. Unprepared 3. Prepared 4. Very prepared
II.1c. How prepared did you feel to implement the second recommendation in your classroom? <i>Mark one only</i>	<ol style="list-style-type: none"> 1. Very unprepared 2. Unprepared 3. Prepared 4. Very prepared

[ALL]

II.2. When answering this next set of questions, please respond with just one of your algebra classes in mind.

Instructional strategies for implementing the second recommendation	On average, for each algebra class of students you teach, how many times did you use the instructional strategies in your algebra class during Module 2 (the time between the first and last PLC sessions of the module)? <i>Mark one for each row</i>				
II.2a. Promote the use of language that reflects mathematical structure.	0=Never	1=1-2 times	2=3-5 times	3=6-8 times	4=9 or more times
II.2b. Encourage students to use reflective questioning to notice structure as they solve problems.	0=Never	1=1-2 times	2=3-5 times	3=6-8 times	4=9 or more times
II.2c. Teach students that different algebraic representations can convey different information about an algebra problem.	0=Never	1=1-2 times	2=3-5 times	3=6-8 times	4=9 or more times

[ALL]

II.3. Do you plan to use the instructional strategies associated with the second recommendation in your classroom in the future? *Mark yes or no for each item*

Instructional strategy	Do you plan to use this instructional strategy in your classroom in the future?
II.3a. Promote the use of language that reflects mathematical structure.	1=Yes 0=No 2=Unsure
II.3b. Encourage students to use reflective questioning to notice structure as they solve problems	1=Yes 0=No 2=Unsure
II.3c. Teach students that different algebraic representations can convey different information about an algebra problem	1=Yes 0=No 2=Unsure

[ALL]

II.4. To what extent do you feel your ability to implement the second recommendation and related instructional strategies increased since starting Module 2? *Mark one only*

1. Not at all
2. Very little
3. Somewhat
4. A lot

[ALL]

II.5. Overall, what went well with implementing the second recommendation and related instructional strategies in your classroom? *Please describe*

[ALL]

II.6. Overall, what was challenging with implementing the second recommendation and related instructional strategies in your classroom? *Please describe*

[ALL]

II.7. How did you attempt to overcome the challenges you encountered when implementing the second recommendation and related instructional strategies. *Please describe*

Thank you for completing the Module 2 Implementation Log!

END OF IMPLEMENTATION LOG

Teacher Implementation Log: Module 3

Module 3 of the Toolkit centered on the third of three recommendations for instructional practices. The third recommendation focused on **teaching students to intentionally choose from alternative algebraic strategies when solving problems**. Now that you have completed the Plan-Do-Study-Act (PDSA) cycle for Module 3, we'd like to learn about what went well and what was challenging with implementing this third recommendation and using the related Toolkit materials.

- We expect it to take you about 15-20 minutes to complete this implementation log. Please complete this log by [DATE].
- As a teacher who is receiving access to the Toolkit, your insights are valuable, and we hope you will take the time to complete this log. You may skip any questions you are not comfortable answering; however, we hope that you answer as many as you can.
- The information you provide in this implementation log will help us understand how teachers used the resources and recommendations in their classrooms as well as inform future improvements to the Toolkit. Any reporting prepared for this study will summarize findings across participating districts and will not associate responses with a specific district, school or individual.
- All data collected for this study will be kept confidential, except as required by law. The researchers conducting this study follow the confidentiality and data protection requirements of the U.S. Department of Education's Institute of Education Sciences (The Education Sciences Reform Act of 2002, Title I, Part E, Section 183).
- If you complete an implementation log for each of the four Toolkit modules, you will receive a \$40 gift card to thank you for your time and effort.

q START IMPLEMENTATION LOG

Section I: Module 3 implementation and usefulness of the resources

In this section, we'd like to learn about which Toolkit materials you used during Module 3 and how useful these materials were for implementing the third recommendation in your classroom. As a reminder, **the third recommendation focused on teaching students to intentionally choose from alternative algebraic strategies when solving problems**.

Module 3 Independent non-PLC session work

[ALL]

I.1. Overall, how much of the independent non-PLC session work did you complete for Module 3? This type of work includes completing the PDSA cycle activities, planning instructional assessment activities, delivering lessons utilizing the instructional strategies, collecting data using tools from the Toolkit, and subsequently refining instructional approaches based on data collected and decisions made using the PDSA process. *Mark one only*

0. None
1. A little
2. Some
3. Most
4. All

[IF I.1=0, GO TO I.5]

[IF I.1=1,2,3 OR 4]

[PROGRAMMER: Allow the following definition to display when hovered over independent non-PLC session work: “The tasks teachers are asked to complete on their own to take action on what they are learning. This includes completing the PDSA cycle activities, planning instructional and assessment activities aligned with toolkit resources, delivering lessons utilizing instructional strategies highlighted in the toolkit, collecting data using the tools from the toolkit, and refining instructional approaches based on data collected and decisions made using the PDSA process.”]

I.2. On average, how long would you spend completing an independent non-PLC session work activity in this module? *Mark one only*

1. 15 minutes or less
2. 16 – 30 minutes
3. 31 – 45 minutes
4. 46 minutes or more

[IF I.1=1,2,3, OR 4]

[PROGRAMMER: Allow the following definition to display when hovered over third recommendation: “Teaching students to intentionally choose from alternative algebraic strategies when solving problems.”]

I.3. How useful was the independent non-PLC session work for implementing the third recommendation in your classroom? *Mark one only*

1. Not useful
2. Somewhat useful
3. Useful
4. Very useful

[IF I.1=1,2,3, OR 4]

I.4. Excluding time spent in the PLC sessions, how many hours did you spend using Toolkit resources associated with the third recommendation **outside of your usual working hours**? *Please write your response below*

Module 3 PLC sessions

[ALL]

1.5. How useful were the PLC sessions for implementing the third recommendation in your classroom? *Mark one only*

0. Not applicable, I did not attend any PLC sessions for Module 3.
1. Not useful
2. Somewhat useful
3. Useful
4. Very useful

Module 3 Resources

[ALL]

[PROGRAMMER: Allow the following definitions to display when hovered over the below terms:

- [PDSA tool](#): “Helps teachers implement Toolkit practices in their classroom and study the effect on their instructional practice and student learning.”
- [Teacher self-reflection tool](#): Helps teachers reflect on their use of the recommendation’s instructional strategies.”
- [Visitation tool](#): “Gathers feedback from a colleague on teacher implementation of the recommendation’s instructional practices.”
- [Student survey](#): “Helps teachers assess students’ engagement and mindset in math class and whether the recommendation’s instructional strategies have improved their math ability and learning.”
- [Student knowledge assessment tool](#): “Helps teachers assess student mastery of algebra.”
- [Module 3 teacher participant workbook](#): “Provides teachers with an overview of the Toolkit and resources they will use as they work through the learning modules and activities for the third recommendation.”]

I.6. Thinking back through Module 3, how useful were the following resources for implementing the second recommendation in your classroom? We recognize that you may not have used all of the resources during Module 3 implementation – when that is the case, just note that you did not use the resource. *Mark one for each item*

Resource	Usefulness of each resource				
I.6a. PDSA tool (Appendix A)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
I.6b. Teacher self-reflection tool (Appendix D1)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
I.6c. Visitation tool (Appendix D2)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
I.6d. Student survey (Appendix D3)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
I.6e. Student knowledge assessment tool (Appendix D4)	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use
I.6f. Module 3 teacher participant workbook	1=Not useful	2=Somewhat useful	3=Useful	4=Very useful	0=Did not use

[ALL]

I.7. Did you attend any of the office hours with the Toolkit development team during Module 3? *Mark one only*

1. Yes
0. No

[ALL]

I.8. Please describe any improvements that could be made to any of the Module 3 toolkit resources that would help you better use the resources or implement the third recommendation in your classroom.

Section II. Use of the instructional strategies for implementing the third recommendation

There are three instructional strategies that the toolkit suggests teachers use to carry out the third recommendation. In this section, we’d like to learn what implementation of the third recommendation and use of these instructional strategies looked like in your classroom.

[ALL]

II.1. Thinking about the third recommendation, **teaching students to intentionally choose from alternative algebraic strategies when solving problems**, please answer the following questions.

II.1a. How well do you understand the third recommendation? <i>Mark one only</i>	<ol style="list-style-type: none">1. Not at all2. Not very well3. Well4. Very well
II.1b. How prepared did you feel to integrate the third recommendation into your lesson plans? <i>Mark one only</i>	<ol style="list-style-type: none">1. Very unprepared2. Unprepared3. Prepared4. Very prepared
II.1c. How prepared did you feel to implement the third recommendation in your classroom? <i>Mark one only</i>	<ol style="list-style-type: none">1. Very unprepared2. Unprepared3. Prepared4. Very prepared

[ALL]

II.2. When answering this next set of questions, please responde with just one of your algebra classes in mind

Instructional strategies for implementing the third recommendation	On average, for each algebra class of students you teach, how many times did you use the instructional strategies in your algebra class during Module 3 (the time between the first and last PLC sessions of the module)? <i>Mark one for each row</i>				
II.2a. Teach students to recognize and generate multiple strategies for solving problems.	0=Never	1=1-2 times	2=3-5 times	3=6-8 times	4=9 or more times
II.2b. Encourage students to articulate the reasoning behind their choice of strategy and the mathematical validity of their strategy when solving problems.	0=Never	1=1-2 times	2=3-5 times	3=6-8 times	4=9 or more times
II.2c. Have students evaluate and compare different strategies for solving problems.	0=Never	1=1-2 times	2=3-5 times	3=6-8 times	4=9 or more times

[ALL]

II.3. Do you plan to use the instructional strategies associated with the third recommendation in your classroom in the future? *Mark yes or no for each item*

Instructional strategy	Do you plan to use this instructional strategy in your classroom in the future?
II.3a. Teach students to recognize and generate multiple strategies for solving problems.	1=Yes 0=No 2=Unsure
II.3b. Encourage students to articulate the reasoning behind their choice of strategy and the mathematical validity of their strategy when solving problems.	1=Yes 0=No 2=Unsure
II.3c. Have students evaluate and compare different strategies for solving problems.	1=Yes 0=No 2=Unsure

[ALL]

II.4. To what extent do you feel your ability to implement the third recommendation and related instructional strategies increased since starting Module 3? *Mark one only*

1. Not at all
2. Very little
3. Somewhat
4. A lot

[ALL]

II.5. Overall, what went well with implementing the third recommendation and related instructional strategies in your classroom? *Please describe*

[ALL]

II.6. Overall, what was challenging with implementing the third recommendation and related instructional strategies in your classroom? *Please describe*

[ALL]

II.7. How did you attempt to overcome the challenges you encountered when implementing the third recommendation and related instructional strategies. *Please describe*

Thank you for completing the Module 3 Implementation Log!

END OF IMPLEMENTATION LOG

Teacher Implementation Log: Module 4

Module 4 of the Toolkit centered on **addressing implementation roadblocks and sustaining long-term use of the three recommended practices**. Now that you have completed the work for Module 4, we'd like to learn about what went well and what was challenging with addressing roadblocks, thinking through sustained long-term use of the recommended practices, and using the related Toolkit materials.

- We expect it to take you about 15-20 minutes to complete this implementation log.
- As a teacher who is receiving access to the Toolkit, your insights are valuable, and we hope you will take the time to complete this log. You may skip any questions you are not comfortable answering; however, we hope that you answer as many as you can.
- The information you provide in this implementation log will help us understand how teachers used the resources and recommendations in their classrooms as well as inform future improvements to the Toolkit. Any reporting prepared for this study will summarize findings across participating districts and will not associate responses with a specific district, school or individual.
- All data collected for this study will be kept confidential, except as required by law. The researchers conducting this study follow the confidentiality and data protection requirements of the U.S. Department of Education's Institute of Education Sciences (The Education Sciences Reform Act of 2002, Title I, Part E, Section 183).
- If you complete an implementation log for each of the four Toolkit modules, you will receive a \$40 gift card to thank you for your time and effort.

q START IMPLEMENTATION LOG

Section I: Module 4 implementation and usefulness of the resources

In this section, we'd like to learn about which Toolkit materials you used during Module 4 and how useful these materials were for **addressing implementation roadblocks and sustaining long-term use of the three recommended practices**.

Module 4 Independent non-PLC session work

[ALL]

I.1. Overall, how much of the independent non-PLC session work did you complete for Module 4? This type of work includes completing the PDSA cycle activities, planning instructional assessment activities, delivering lessons utilizing the instructional strategies, collecting data using tools from the Toolkit, and subsequently refining instructional approaches based on data collected and decisions made using the PDSA process. *Mark one only*

0. None
1. A little
2. Some
3. Most
4. All

[IF I.1=0, GO TO I.6]

[IF I.1=1,2,3 OR 4]

[PROGRAMMER: Allow the following definition to display when hovered over independent non-PLC session work: “The tasks teachers are asked to complete on their own to take action on what they are learning. This includes completing the PDSA cycle activities, planning instructional and assessment activities aligned with toolkit resources, delivering lessons utilizing instructional strategies highlighted in the toolkit, collecting data using the tools from the toolkit, and refining instructional approaches based on data collected and decisions made using the PDSA process.”]

I.2. On average, how long would you spend completing an independent non-PLC session work activity in this module? *Mark one only*

1. 15 minutes or less
2. 16 - 30 minutes
3. 31 - 45 minutes
4. 46 minutes or more

[IF I.1=1,2,3, OR 4]

I.3. Excluding time spent in the PLC sessions, how many hours did you spend using Toolkit resources associated with the fourth module **outside of your usual working hours**? *Please write your response below*

[IF I.1=1,2,3 OR 4]

I.4. How useful was the independent non-PLC session work for addressing implementation roadblocks of the three recommendations in your classroom? *Mark one only*

1. Not useful
2. Somewhat useful
3. Useful
4. Very useful

[IF I.1=1,2,3 OR 4]

I.5. How useful was the independent non-PLC session work for planning to sustain long-term use of the three recommendations in your classroom? *Mark one only*

1. Not useful
2. Somewhat useful
3. Useful
4. Very useful

Module 4 PLC sessions

[ALL]

I.6. How useful were the PLC sessions for addressing implementation roadblocks of the three recommendations in your classroom?

0. Not applicable, I did not attend any PLC sessions for Module 4
1. Not useful
2. Somewhat useful
3. Useful
4. Very useful

[IF I.6=0, GO TO I.8]

[IF I.6=1,2,3 OR 4]

I.7. How useful were the PLC sessions for planning to sustain long-term use of the three recommendations in your classroom? *Mark one only*

0. Not applicable, I did not attend any PLC sessions for Module 4.
1. Not useful
2. Somewhat useful
3. Useful
4. Very useful

Module 4 Resources

[ALL]

[PROGRAMMER: Allow the following definitions to display when hovered over the below terms:

- Cumulative self-reflection resource: "Helps teachers reflect on implementing the Toolkit practices in their classroom."
- Algebra teaching practices card sort activity: "Helps teachers collect their students' perspectives on the implementation of the teaching practices in the classroom."
- Action plan resource: "Helps teachers think through upcoming goals, the resources needed to accomplish these goals, and how they will measure success."
- Module 4 participant workbook: "Provides teachers with an overview of the Toolkit and resources they will use as they work through the learning modules and activities to address implementation roadblocks and sustain long-term use of the recommended practices."]

I.8. For each of the resources that were part of Module 4, please mark how useful the resources were for helping you address implementation roadblocks and how useful they were for thinking through sustained long-term use of the three recommendations in your classroom. We recognize that you may not have used all of the resources during Module 4 implementation – when that is the case, just note that you did not use the resource.

Resource	How useful was this resource for <u>addressing implementation roadblocks</u>? <i>Mark one only for each resource</i>	How useful was this resource for <u>thinking through sustained long-term use of the three recommendations in your classroom</u>? <i>Mark one only for each resource</i>
I.8a. Cumulative self-reflection resource	<ol style="list-style-type: none">0. I did not use this resource during Module 4 implementation1. Not useful2. Somewhat useful3. Useful4. Very useful	<ol style="list-style-type: none">0. I did not use this resource during Module 4 implementation1. Not useful2. Somewhat useful3. Useful4. Very useful
I.8b. Algebra teaching practices card sort activity	<ol style="list-style-type: none">0. I did not use this resource during Module 4 implementation1. Not useful2. Somewhat useful3. Useful4. Very useful	<ol style="list-style-type: none">0. I did not use this resource during Module 4 implementation1. Not useful2. Somewhat useful3. Useful4. Very useful
I.8c. Action plan resource	<ol style="list-style-type: none">0. I did not use this resource during Module 4 implementation1. Not useful2. Somewhat useful3. Useful4. Very useful	<ol style="list-style-type: none">0. I did not use this resource during Module 4 implementation1. Not useful2. Somewhat useful3. Useful4. Very useful

I.8d. Module 4 participant workbook	0. I did not use this resource during Module 4 implementation 1. Not useful 2. Somewhat useful 3. Useful 4. Very useful	0. I did not use this resource during Module 4 implementation 1. Not useful 2. Somewhat useful 3. Useful 4. Very useful
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[ALL]

[PROGRAMMER: Allow the following definitions to display when hovered over the below terms:

- [PDSA tool](#): “Helps teachers implement Toolkit practices in their classroom and study the effect on their instructional practice and student learning.”
- [Teacher self-reflection tool](#): Helps teachers reflect on their use of the recommendation’s instructional strategies.”
- [Visitation tool](#): “Gathers feedback from a colleague on teacher implementation of the recommendation’s instructional practices.”
- [Student survey](#): “Helps teachers assess students’ engagement and mindset in math class and whether the recommendation’s instructional strategies have improved their math ability and learning.”
- [Student knowledge assessment tool](#): “Helps teachers assess student mastery of algebra.”
- [Module 1 teacher participant workbook](#): “Provides teachers with an overview of the Toolkit and resources they will use as they work through the learning modules and activities for the first recommendation.”
- [Module 2 teacher participant workbook](#): “Provides teachers with an overview of the Toolkit and resources they will use as they work through the learning modules and activities for the second recommendation.”
- [Module 3 teacher participant workbook](#): “Provides teachers with an overview of the Toolkit and resources they will use as they work through the learning modules and activities for the third recommendation.”
- [Module 4 teacher participant workbook](#): “Provides teachers with an overview of the Toolkit and resources they will use as they work through the learning modules and activities to address implementation roadblocks and sustain long-term use of the recommended practices.”
- [Cumulative self-reflection resource](#): “Helps teachers reflect on implementing the Toolkit practices in their classroom.”
- [Algebra teaching practices card sort activity](#): “Helps teachers collect their students’ perspectives on the implementation of the teaching practices in the classroom.”
- [Action plan resource](#): “Helps teachers think through upcoming goals, the resources needed to accomplish these goals, and how they will measure success.”]

I.9. Looking ahead to the rest of the school year and beyond, after the Toolkit professional development activities have concluded, do you plan to use any of the following Toolkit resources to support your instruction? *Mark one for each item*

	Yes	No	Unsure
I.9a. PDSA tool	¹ q	⁰ q	² q
I.9b. Teacher self-reflection tool	¹ q	⁰ q	² q
I.9c. Visitation tool	¹ q	⁰ q	² q
I.9d. Student survey	¹ q	⁰ q	² q
I.9e. Student knowledge assessment tool	¹ q	⁰ q	² q
I.9f. Module 1 participant workbook	¹ q	⁰ q	² q
I.9g. Module 2 participant workbook	¹ q	⁰ q	² q
I.9h. Module 3 participant workbook	¹ q	⁰ q	² q
I.9i. Module 4 participant workbook	¹ q	⁰ q	² q
I.9j. Cumulative self-reflection resource	¹ q	⁰ q	² q
I.9k. Algebra teaching practices card sort activity	¹ q	⁰ q	² q
I.9l. Action plan resource	¹ q	⁰ q	² q

Section II. Sustaining the use of the three recommendations

In this section, we'd like to learn to what extent you plan to continue using each recommendation in your classroom once the Toolkit professional development activities conclude. We'd like your suggestions on how we can improve the Toolkit resources. We'd also like to learn what went well and what was challenging with addressing implementation roadblocks and thinking through the sustained use of the three recommendations in your classroom.

[ALL]

II.1. How often do you estimate you will use each recommendation in your classroom going forward?

Mark one for each item

Recommendation	Planned frequency of use going forward					
II.1a. First recommendation: Using solved problems to engage students in analyzing algebraic reasoning and strategy.	0=Never	1=Less than monthly	2=Monthly	3=A few times a month	4=Once a week	5=More than once a week
II.1b. Second recommendation: Teaching students to utilize the structure of algebraic representations.	0=Never	1=Less than monthly	2=Monthly	3=A few times a month	4=Once a week	5=More than once a week
II.1c. Third recommendation: Teaching students to intentionally choose from alternative algebraic strategies when solving problems.	0=Never	1=Less than monthly	2=Monthly	3=A few times a month	4=Once a week	5=More than once a week

[ALL]

II.2. Please describe improvements to the Module 4 PLC sessions or resources that would help you better address implementation roadblocks and sustaining long-term use of the three recommendations in your classroom. *Please describe*

[ALL]

II.3. Overall, what went well with addressing implementation roadblocks and thinking through sustained long-term use of the three recommendations in your classroom? *Please describe*

[ALL]

II.4. Overall, what was challenging with addressing implementation roadblocks and thinking through sustained long-term use of the three recommendations in your classroom? *Please describe*

[ALL]

II.5. How did you attempt to overcome the challenges you encountered when addressing implementation roadblocks and thinking through sustained long-term use of the three recommendations in your classroom. *Please describe*

Thank you for completing the Module 4 Implementation Log!
END OF IMPLEMENTATION LOG