

Technical memorandum: Early Learning Inventory study analysis methods: Part 2

Date: November 3, 2022

To: Lauren Jenks-Jones, Oklahoma State Department of Education

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Subject: Early Learning Inventory (ELI) Study Analysis Methods: Part 2

Introduction

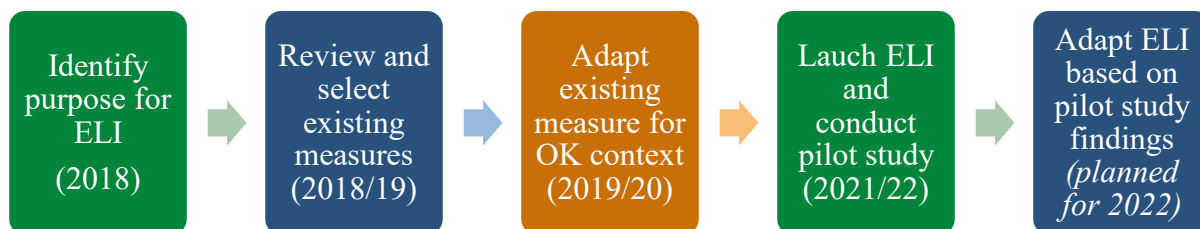
This memo is a follow-up to the Session 4 technical memo for this project. The prior memo described methodology for the validation and implementation analyses conducted using study data collected in the fall of 2021. This memo describes subsequent analyses conducted with additional data collected in spring 2022.

Project overview

With support from the Regional Educational Laboratory (REL) Southwest, the Oklahoma State Department of Education (OSDE) developed and released an Early Learning Inventory (ELI) as an optional tool for Oklahoma public school kindergarten teachers during the 2021/22 school year (see figure 1). OSDE adapted the ELI from New Mexico's validated Early Childhood Observation Tool to align with Oklahoma Academic Standards. OSDE intends the ELI to serve as a resource for teachers to better understand their students' competencies and skills at the beginning of the school year, to individualize instructional activities based on this information, and to track students' progress throughout the year.

REL Southwest has supported OSDE in conducting a pilot study to examine teachers' implementation of the ELI and to obtain evidence of the ELI's validity in the Oklahoma context. The implementation study includes a sample of 44 kindergarten teachers across 12 districts who used the ELI during the 2021/22 school year.

Figure 1. ELI research and development process



This memo provides a summary of the research questions, data sources, and analysis methods for this study.

Research questions

The study included 10 research questions, including four validation research questions and six implementation research questions. The research questions discussed in this memo are 1a, 1b, 1c, 6, 10, and 10a.

Validation research questions

1. What domains of students' learning and development does the ELI validly measure?
2. Do any of the ELI indicators exhibit potential bias for student groups?
3. Do teachers use rating categories for each ELI item as intended?
4. To what extent does the ELI provide information about individual student abilities?

Implementation research questions

5. To what extent do the ELI training and resources prepare kindergarten teachers to use the ELI?
6. How do teachers report administering the ELI in their classroom, and do they report using the ELI data to inform instruction?
7. What are teachers' perceptions about the feasibility and value of using the ELI in their classroom?
8. What are the key facilitators and challenges for kindergarten teachers implementing the ELI with fidelity?
9. What improvements could be made to the ELI training, measure, and technology platform to increase feasibility and fidelity?
10. What motivated districts to use the ELI?
 - a. *What are administrators' perceptions about the value of the ELI?*

Modifications to research questions for Spring 2022

The initial validation analyses presented in Session 4 used student-level ELI data from fall 2021 from 853 students. REL Southwest intended to replicate these analyses in spring 2022. However, most teachers did not use the ELI in spring 2022 and the ELI data were available for only 25 students (from one teacher) in spring 2022. Due to the small sample size, REL Southwest could not replicate the analyses for research questions 1-4 as planned. As an alternative, REL Southwest conducted analyses to address the following three new subquestions for research question 1 to present during Session 5.

1a. Is the ELI a reliable measure for its specified purpose and for the population with which it will be used?

1b. How do the raw scores on the ELI items correspond to the students' performance-levels measured by the ELI domains?

1c. What is the distribution of students' performance levels at the beginning and end of year ELI administrations?

Limitations of the Spring 2022 data. The REL Southwest project team has modified the research questions to maximize the usefulness of the data collected in Spring 2022. However, there are important limitations to the data. First, given the prior research on early childhood assessment tools, there is a sizeable amount of teacher variance included in scores. Since the Spring 2022 data are all connected with only one teacher, the study team was unable to parse out the teacher-level variation and therefore the generalizability of the findings is limited. As results from these analyses could be highly related to the individual perspectives of the teacher, conditions at the site, and other contextual information, we were unable to separate signal from noise and estimate true reliability of the ELI. Similarly, since the data came from only one non-randomly selected classroom and were not representative of other kindergarten students, findings from analyses with the Spring 2022 data should not be generalized beyond this sample. Moreover, with a small sample size of 25 students, we were unable to conduct any type of definitive statistical analysis that involves statistical significance tests. As a result, findings should be only used to describe the sample and be interpreted with caution.

For the implementation research questions, the original plan was to replicate the analyses for research questions 5-9 to obtain data on implementation based on teachers' use of the ELI at the end of year (EOY). While 39 teachers completed the second follow-up survey, only nine teachers self-reported using the ELI at EOY and only one teacher submitted ELI data for their students. With the exception of research question 6, replicating the analyses would not provide new information as most respondents were responding based on reflections from the beginning of year (BOY) implementation. The first follow-up survey responses presented during the last session are more reliable because they were given closer to when teachers used the ELI. As such, REL Southwest conducted analyses for implementation research question 6 and for research question 10 (which was not included in Session 4) for the follow-up analyses.

Data sources

REL Southwest used student-level ELI assessment data and data on student enrollment and characteristics from the OSDE to address the validation research questions (research questions 1a, 1b, and 1c). REL Southwest used data from teacher surveys and an administrator survey to address the implementation questions (research questions 6, 10, and 10a). These data sources are described in more detail in this section.

Student-level Early Learning Inventory assessment data

REL Southwest obtained extant, de-identified student-level ELI indicator ratings from fall 2021 to conduct the analysis for four originally proposed validation research questions (see prior technical memo¹ for details). REL Southwest also obtained end-of-year student-level ELI data to conduct this follow-up analysis. The ELI includes 26 indicators each with six rating categories that follow a learning progression. OSDE provided a pseudo-identification (ID) number for students and their data file linked the student data to classroom teachers so that the analyses can appropriately account for the nesting of students within teachers. For Session 5, these data address research questions 1a, 1b, and 1c.

Teacher surveys

With support from REL Southwest, OSDE administered the second follow-up teacher survey, also using an online survey platform, after the end-of-year ELI administration (in April 2022). The second follow-up teacher survey included some of the same items as the first follow-up teacher survey to examine implementation of the ELI. For Session 5, these data addressed research question 6. This survey appears in appendix A.

¹ REL Southwest Technical Memorandum: Early Learning Inventory Study Analysis Methods (2022).

Administrator surveys

With support from REL Southwest, OSDE also administered a short survey to administrators, gathering information about motivations for using the ELI and their perceptions of its value and opportunities for improvement. For Session 5, these data addressed research questions 10 and 10a. This survey appears in appendix B.

Analysis methods

This section describes the analytic approaches REL Southwest used to address research questions, 1a, 1b, 1c, 6, 10, and 10a. In addition, this section describes data preparation steps. Due to small sample size, the end-of-year student level ELI assessment data could not adequately address the original research questions about validation. Thus, REL Southwest revised the validation questions and updated the analytic approaches that are more suitable for a small sample size. However, REL Southwest acknowledges that the sample size is too small for any type of definitive statistical analysis. Findings from the analysis should be considered exploratory and should be interpreted with caution.

Student-level data preparation

REL Southwest merged student-level beginning-of-year and end-of-year data files received from OSDE. For the student-level data file with student characteristics and teacher-provided ratings on the ELI, REL Southwest ran descriptive analyses on all the variables, means for continuous variables, frequency distributions for categorical variables, minimum values, maximum values, and percentage missing, to confirm that the attributes of the information are within reason. In addition, the research team reviewed the file to remove any duplicate observations, observations with invalid ratings, and observations with birthdates outside of the range of kindergarten ages.

Research question 1a. Is the ELI a reliable measure for its specified purpose and for the population with which it will be used?

REL Southwest conducted analyses to examine the internal consistency (Cronbach's alphas) and person reliability of the two established constructs: Early Academic Competencies and Skills to Support Learning of the ELI. To assess whether the internal consistency of the established latent constructs in the end-of-year ELI data would hold, REL Southwest calculated the internal consistency for each latent construct. REL Southwest also estimated the Rasch person reliability. Different than Cronbach's alpha, Rasch reliability is more sensitive for different reasons. Rasch person reliability is largely driven by the targeting/alignment between the item difficulties and the target population ability distribution. In contrast, alpha coefficients are largely driven by the extent to which the individual item responses (not measures) correlate with each other, regardless of the item–person targeting.

In addition, REL Southwest conducted analyses to examine the test-retest reliability between beginning-of-year and end-of-year administrations. REL Southwest also calculated Pearson correlation between beginning-of-year scale scores and end-of-year scale scores to examine consistency over time. The research team used the criterion as the main criterion suggested by Cicchetti (1994), which defined 0.4 to 0.59 as fair, 0.60 to 0.74 as good, and above 0.75 as excellent.

Research question 1b. How do the raw scores on the ELI items correspond to the students' performance-levels measured by the ELI domains?

Although the reliability and prior validity analyses provided evidence for what latent constructs of students' knowledge and skills the ELI can measure, ELI domain scores are not inherently meaningful to a wide audience as a standalone number. To enhance the meaning and usefulness of these ELI domain scores, we calculated cut scores associated with the established six performance levels.

To answer this research question, REL Southwest used the beginning-of-year data to calculate cut scores because the data included the most students and served as the baseline of the study findings. Each ELI item has a unique set of psychometric properties, including a logit value that represents the item’s relative difficulty and thresholds for the transition between each rubric category on a latent construct (ability) scale that is measured by ELI. For each item associated with a domain, the study team identified the appropriate logit value to represent the transition points between two adjacent levels of ability. Then, for each domain, the average logit value was calculated for the transition point between levels. These domain-level average logit values directly inform the raw score thresholds (cut scores). As a final step, the raw score sums that correspond to the average logit values were identified for each domain. Because each item has different difficulty and discrimination parameters leading to different thresholds for each item, averaging these thresholds mask variations in the difficulty levels among different items. However, translating these logit cut scores into raw score sum ranges enables a stakeholder to easily identify a student’s performance-level category using only the sum of the points that the student received on the items.² Average logit values and their corresponding sum scores are presented in table 1.

Table 1. Average logit values and sum scores, by level and ELI domain

Levels	Early academic competencies		Skills to support learning	
	Logit value	Sum score	Logit value	Sum score
1. Accomplished for 3s	-3.56	28	-4.29	13
2. Making Progress for 4s	-2.35	39	-2.44	20
3. Accomplished for 4s	-0.52	56	-0.47	31
4. Making Progress for K	1.85	72	2.11	36
5. Accomplished for K	4.58	88	5.09	44
6. Making Progress for Grade 1	Above 88		Above 44	

Note: Analyses were done on beginning of the year data

Research question 1c. What is the distribution of students’ performance levels at the beginning-of-year and end-of-year administrations?

REL Southwest examined the distributions of students’ performance levels in each domain based on the cut scores summarized in table 1. The team examined the percent of students whose scores were within each of the six levels for each ELI domain. Specifically, the team examined the distribution of performance levels of the 25 students who had data both at the beginning of the year and end of year. In addition to compare the distributions of the 25 student sub-sample, the team also examined the distribution of performance levels of the full sample.

Research question 6. How do teachers report administering the ELI in their classroom, and do they report using the ELI data to inform instruction?

For Session 5, REL Southwest used the second follow-up teacher survey to provide new information for research question 6. Thirty-nine of 44 teachers responded to the second follow-up teacher survey for a response rate of 86 percent. REL Southwest examined response distributions for items 7, 9, and 17 of the second-follow up survey and conducted basic descriptive summaries of survey responses. REL Southwest tabulated responses to the second follow-up survey and developed bar graphs to show the distribution of

² Raw scores can be used only to determine performance-level categories for cases with complete data.

responses overall. For example, the team examined the frequencies of responding teachers who would or would not use the ELI next year.

In addition, REL Southwest coded two open-ended survey items for research question 6 (items 10 and 18). The research team examined responses for potential coding into a category of findings for presentation in the report. Two researchers served as coders, using Microsoft Excel to support their coding. To ensure inter-rater reliability, all surveys were double coded. The team reviewed codes by both coders and found adequate level of agreement (75 percent). After the themes emerged, the research team summarized the number of responses that fell under each of the themes and identified exemplary quotes for the theme.

Research question 10. What motivated districts to use the ELI?

For Session 5, REL Southwest used the administrator survey and the second follow-up teacher survey to address research question 10. Nine of 12 administrators completed the administrator survey for a response rate of 75 percent. REL Southwest coded open-ended survey item 3 from the administrator survey and item 14 from the second follow-up survey for research question 10. The research team examined responses for potential coding into a category of findings for presentation in the report. Two researchers served as coders, using Microsoft Excel to support their coding. To ensure inter-rater reliability, all surveys were double coded. The team reviewed codes by both coders and found adequate level of agreement (75 percent). After the themes emerged, the research team summarized the number of responses that fell under each of the themes and identified exemplary quotes for the theme.

Research question 10a. What are administrators' perceptions about the value of the ELI?

For Session 5, REL Southwest used the administrator survey to answer research question 10a. REL Southwest examined response distributions for items 4 and 5 of the administrator survey and conducted basic descriptive summaries of survey responses. Like the analyses for research question 6, REL Southwest tabulated responses to the administrator survey and developed bar graphs to show the distribution of responses overall.

In addition, REL Southwest coded open-ended survey items 10 and 11 from the administrator survey for research question 10a. The research team examined responses for potential coding into a category of findings for presentation in the report. Two researchers served as coders, using Microsoft Excel to support their coding. To ensure inter-rater reliability, all surveys were double coded. The team reviewed codes by both coders and found adequate level of agreement (75 percent). After the themes emerged, the research team summarized the number of responses that fell under each of the themes and identified exemplary quotes for the theme.

References

- Cicchetti, D. V. (1994). Guidelines, criteria, and rules of thumb for evaluating normed and standardized assessment instruments in psychology. *Psychological Assessment*, 6(4), 284-290. Doi: 10.1037/1040-3590.6.4.284.
- Dahlke, K., Yang, R., Martínez, C., Chavez, S., Martin, A., Hawkinson, L., Shields, J., Garland, M., & Carle, J. (2017). *Scientific evidence for the validity of the New Mexico Kindergarten Observation Tool* (REL 2018–281). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest. Retrieved from <http://ies.ed.gov/ncee/edlabs>.

Appendix A: Surveys

Teacher Second Follow-up Survey

1. How much paid planning time were you allotted in a normal school week this school year?
(Please include all paid planning time, not just planning time for ELI activities.)

ENTER HOURS AND MINUTES: _____

2. What types of staff are available to help you in your district, during the 2021/22 school year?
(Select all that apply.)

- School Counselor(s)
- Instructional coach(es)
- Teacher mentor(s)
- Information Technology (IT) support
- Assessment Specialist(s)
- Professional Learning Specialist(s)
- Other (please specify): _____

3. Which of the following professional development or instructional supports were available to you in your district, if any, during the 2021/22 school year? (Select all that apply.)

- [EXCLUSIVE OPTION] My district did not offer any of these supports during the 2021/22 school year.
- Courses/seminars about subject matter, teaching methods or pedagogical topics
- Instructional coach(es)
- Teacher mentor(s)
- Professional learning communities
- Reading specialists or interventionists
- Mathematics specialists or interventionists
- Classroom aides
- Observation visits to other schools
- Other: (please specify): _____

4. Please select your level of agreement for each of the following statements. Select one answer for each row.

	Completely disagree	Disagree	Agree	Completely agree
a. I am effective at administering formative assessments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I can effectively use what I learn about students through formative assessment into my instruction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Formative assessments are a useful tool to improve my practice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Completely disagree	Disagree	Agree	Completely agree
d. Assessments help teachers plan instruction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Assessments offer information about students that was already known.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Assessments help teachers know what concepts students are learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Assessments help teachers identify learning goals for their students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Students benefit when teacher instruction is informed by assessment data.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. I think it is important to use assessment data to inform education practice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. I like to use assessment data.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. I find assessment data useful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Using assessment data helps me be a better teacher.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Please indicate the extent to which you agree with the following statements. **The ELI has....**

The ELI has....	Completely disagree	Disagree	Agree	Completely agree
a. ...increased my knowledge of my students' competencies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. ...increased my confidence to support my students' individual needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. ...changed my instructional practices to support my students' individual needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. ...increased my communication with other educators in my district about students' individual needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. ...allowed me to better differentiate instruction .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. ...increased my communication with families about students' individual needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. ...increased families' knowledge of their child's competencies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Please describe in your own words how your planning and/or instruction changed after using the ELI in your classroom. Describe how this change affected your students. Be specific.

7. For which time periods did you administer the ELI this year? (Select all that apply.)

- Beginning of year (August 1-October 1)
- End of year (March 22-April 16)

8. [SHOW IF USED EOY] Please answer this question thinking about the **End of year** ELI administration. March 22-April 16, 2022

For each of the following classroom grouping descriptions, indicate how frequently you gathered evidence of students' knowledge, behaviors, and skills to inform ELI indicator ratings. Select one answer on each row.

	Never/not often	Sometimes	Often
a. During regularly-planned <u>whole group</u> instructional time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. During regularly-planned <u>small group</u> instructional time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. During regularly-planned <u>one-on-one</u> instructional time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. During <u>whole-group</u> instructional time designed intentionally for the purpose of completing the ELI.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. During <u>small-group</u> instructional time designed intentionally for the purpose of completing the ELI.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. During <u>one-on-one</u> instructional time designed intentionally for the purpose of completing the ELI.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. [SHOW IF USED EOY] Please answer this question thinking about the **End of year** ELI administration.

Please select the response that most closely represents how you used the ELI across the students in your classroom. Select one answer on each row.

	For no students	For a few students	For a majority of students	For all or nearly all students
a. I gathered evidence to inform ELI indicator ratings during the end of year collection window.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I generated student-level ELI reports.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I generated parent/student ELI reports.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I shared the ELI data with other teachers and administrators to support the transition to the next grade.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. I plan to share the ELI data with other teachers and administrators to support the transition to the next grade.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. If you did not use the ELI at the end of the year (approximately March 22 - April 15), why not?

11. Please select your level of agreement for each of the following statements. Select one answer for each row.

	Completely disagree	Disagree	Neither agree nor disagree	Agree	Completely agree
a. The ELI seems implementable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The ELI seems possible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. The ELI seems doable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. The ELI seems easy to use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. Were the following factors useful or NOT USEFUL OR SOMEWHAT USEFUL when implementing the ELI? Select one answer for each row.

	Not Useful	Somewhat Useful	Useful	Not Applicable
a. The in-person ELI training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not Useful	Somewhat Useful	Useful	Not Applicable
b. The ELI webpage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. The ELI training resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. The format of the ELI	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. The ELI data dashboard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. A school administrator	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Other assessments I use in kindergarten	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. The ELI reports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. My professional learning community (PLC)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. My mentor/instructional coach	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Planning time during the school day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Please explain why the following were NOT USEFUL OR SOMEWHAT USEFUL or only somewhat useful.

a. [SHOW IF Q14A = NOT USEFUL OR SOMEWHAT USEFUL] The in-person ELI training	_____
b. [SHOW IF Q14B = NOT USEFUL OR SOMEWHAT USEFUL] The ELI webpage	_____
c. [SHOW IF Q14C = NOT USEFUL OR SOMEWHAT USEFUL] The ELI training resources	_____
d. [SHOW IF Q14D = NOT USEFUL OR SOMEWHAT USEFUL] The format of the ELI	_____
e. [SHOW IF Q14E = NOT USEFUL OR SOMEWHAT USEFUL] The ELI data dashboard	_____
f. [SHOW IF Q14F = NOT USEFUL OR SOMEWHAT USEFUL] A school administrator	_____
g. [SHOW IF Q14G = NOT USEFUL OR SOMEWHAT USEFUL] Other assessments I use in kindergarten	_____
h. [SHOW IF Q14H = NOT USEFUL OR SOMEWHAT USEFUL] The ELI reports	_____
i. [SHOW IF Q14I = NOT USEFUL OR SOMEWHAT USEFUL] My professional learning community (PLC)	_____
j. [SHOW IF Q14J = NOT USEFUL OR SOMEWHAT USEFUL] My mentor/instructional coach	_____

k. [SHOW IF Q14K = NOT USEFUL OR SOMEWHAT USEFUL] Planning time during the school day	
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14. What was your primary reason for deciding to use the Early Learning Inventory (ELI)?

15. What recommendations do you have for other teachers regarding what is important for effectively gathering and entering ELI data?

16. What recommendations do you have for other teachers regarding what is important for effectively using data from the ELI?

- 17. Will you use the ELI next year if you are teaching the same grade level?**
- Yes
 - Maybe
 - No
 - I am not going to be teaching the same grade level next year.

18. If you responded maybe or no to the previous question, please explain your answer.

Appendix B: District Administrator Survey

Early Learning Inventory (ELI) District Administrator Survey

1. Approximately what percentage of your students are in the following racial/ethnic characteristics?

	Less than 10%	11-25%	26-50%	51-75%	76% or more
h. Hispanic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Asian	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Black	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Native American	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Pacific Islander	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Two or more races	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. White	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Other (Please specify:)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. What types of staff are available to help the **kindergarten** teachers in your district, during the 2021/22 school year? (Select all that apply.)

- School Counselor(s)
- Instructional coach(es)
- Teacher mentor(s)
- Paraprofessional(s)
- Assistant teacher(s)
- Classroom aide(s)
- Information Technology (IT) support
- Assessment Specialist(s)
- Professional Learning Specialist(s)
- Other (please specify): _____

3. What was your districts' **primary** reason for deciding to use the Early Learning Inventory (ELI)?

4. Please indicate the extent to which you agree with the following statements. **The ELI has....**

The ELI has....	Completely disagree	Disagree	Agree	Completely agree
a. ...increased teacher knowledge of their students' competencies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The ELI has....	Completely disagree	Disagree	Agree	Completely agree
b. ...increased teacher confidence to support their students' individual needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. ...changed teacher instructional practices to support their students' individual needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. ...increased communication among educators about students' individual needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. ...increased communication with families about students' individual needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. ...allowed teachers to better differentiate instruction .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. ...increased families' knowledge of their child's competencies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Have you or other district administrators used the ELI data?

- No
- Yes, please specify for what purposes: _____

6. On average, about how much **paid planning time** (in hours and minutes) per week are kindergarten teachers in your district **typically** given, if any, during the 2021/22 school year?

_____ **minutes**

7. Which of the following **professional development or instructional supports** are available to kindergarten teachers in your district, if any, during the 2021/22 school year? (Select all that apply.)

- [EXCLUSIVE OPTION] We did not offer any of these supports during the 2021/22 school year.
- Courses/seminars about subject matter, teaching methods or pedagogical topics
- Professional learning communities
- Reading specialists or interventionists
- Mathematics specialists or interventionists
- Observation visits to other schools
- Other: (please specify): _____

8. What additional supports, if any, did your district provide to teachers/schools **specifically to support teachers' use of the ELI**?

9. What additional supports from the Oklahoma State Department of Education (OSDE), if any, would help make the ELI more effective in the future? Select all that apply.

- [EXCLUSIVE OPTION] I can't think of any additional supports that would be needed.
- Additional training for teachers
- Additional training for district personnel
- Technical support for teachers to enter data in the ELI dashboard
- Technical support to for teachers to produce ELI reports
- A professional learning community (PLC) for using the ELI
- Other: (please specify): _____

10. What changes are needed to make the **ELI training** more effective?

11. What changes are needed to make the **ELI tool** more effective?

12. Will your district continue to support teachers' use of the ELI during the next school year?

- Yes
- No, please explain why not: _____
- Not Sure, please specify: _____

13. How likely are you to recommend the ELI to other school districts?

- Yes
- No, please explain why not: _____
- Not Sure, please specify: _____

14. What is your role in the district?

- Superintendent
- Assistant Superintendent
- Early Childhood Education Director
- Elementary Specialist
- Curriculum and Instruction Specialist
- Assessment Director
- Academic Director
- English/Lang Arts Director
- Math Director
- Other: (please specify): _____