

Appendix A: Charts Comparing Workshop on Teaching Thinking with Technology Master Teachers to Participant Teachers

Figure 1: Number of Participants who responded to Workshop on Teaching Thinking with Technology End-of-Training Surveys

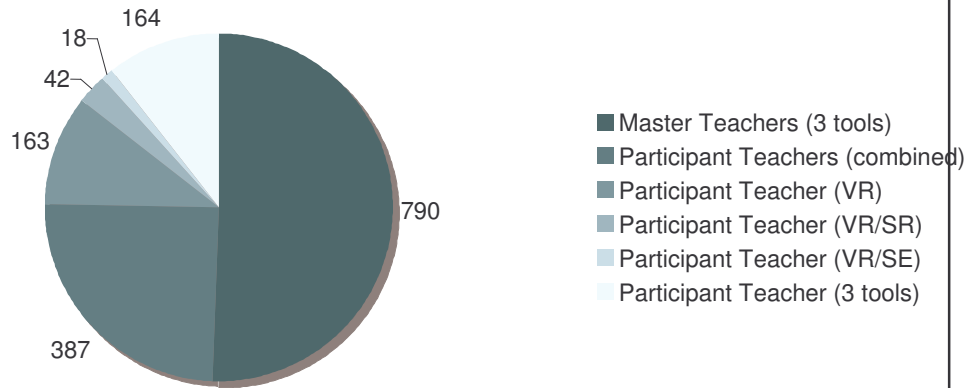


Figure 2: Grade levels taught during the 2005-2006 academic year

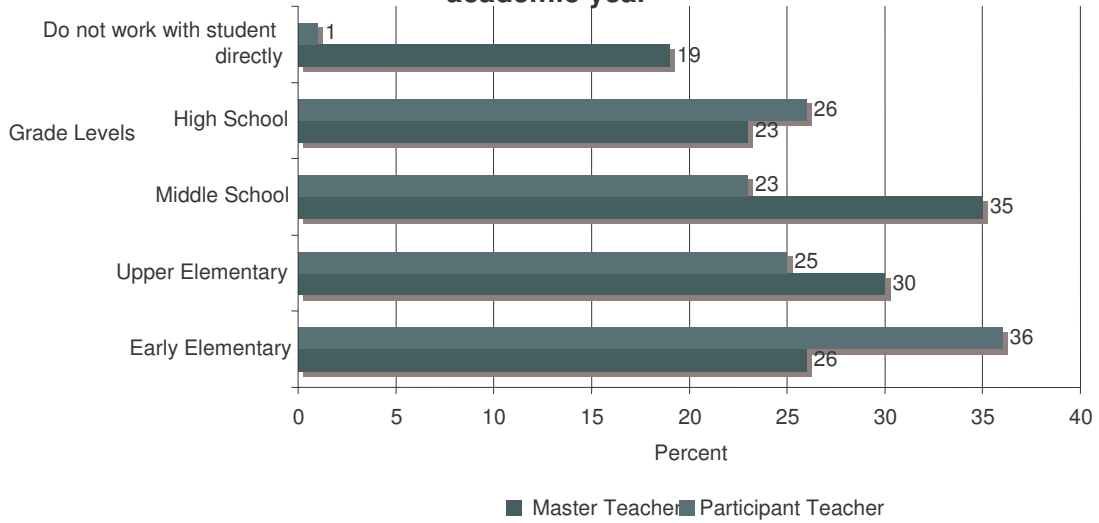


Figure 3: Professional role in schools or district

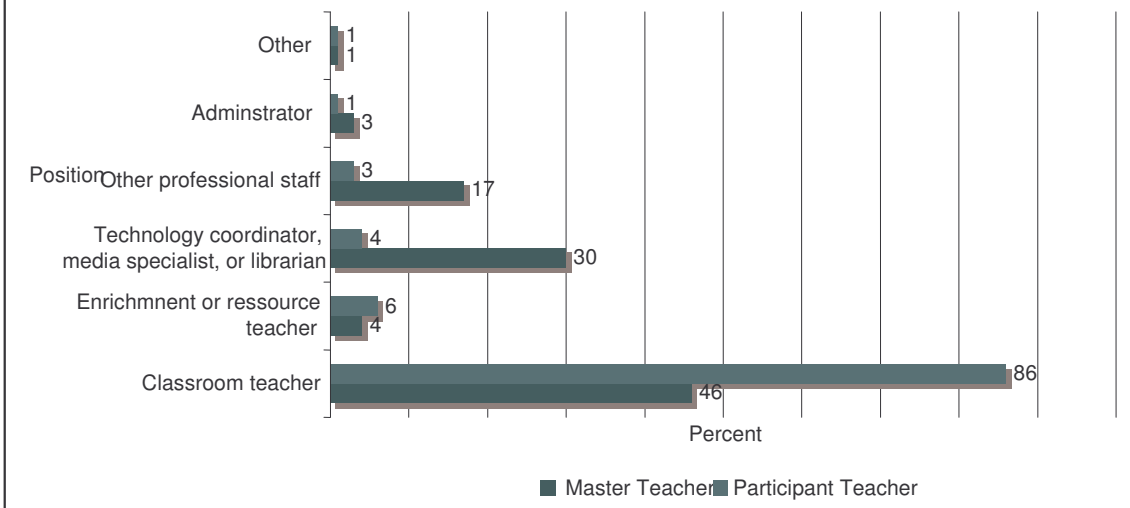
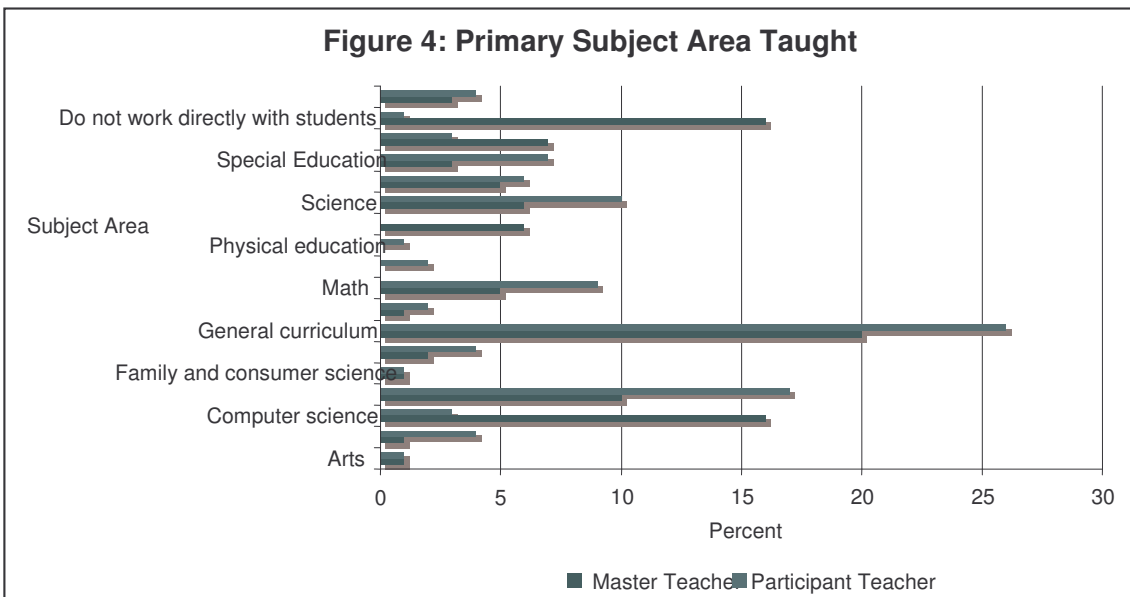


Figure 4: Primary Subject Area Taught



Appendix B: Frequencies of Surveys for End-of-Training Workshop on Teaching Thinking with Technology Master Teachers (n=791)

1. In what state do you teach?

	Frequency	Percent
Alabama	29	3.7
Alaska	1	.1
Arizona	52	6.6
California	11	1.4
Colorado	37	4.7
Florida	18	2.3
Georgia	29	3.7
Illinois	26	3.3
Indiana	1	.1
Kansas	51	6.5
Kentucky	40	5.1
Massachusetts	97	12.3
Michigan	1	.1
Mississippi	15	1.9
Missouri	15	1.9
New Hampshire	12	1.5
New Mexico	24	3.0
New York	16	2.0
North Carolina	79	10.0
Ohio	1	.1
Oregon	36	4.6
Rhode Island	3	.4
South Carolina	2	.3
South Dakota	21	2.7
Tennessee	19	2.4
Texas	121	15.3
Utah	11	1.4
Virginia	1	.1
Washington	4	.5
Wisconsin	17	2.2
Total	790	100.0

2. Which of the following best describes the professional role you play in your school district?

	Frequency	Percent
Classroom teacher	366	46.4
Enrichment or resource teacher	35	4.4
Technology coordinator, media specialist, or librarian	233	29.5
Other professional staff	131	16.6
Administrator	20	2.5
Other	4	.5
Total	789	100.0

4. What is the primary subject you teach?

	Frequency	Percent
Arts	4	.5
ESL	4	.5
Computer Science	123	15.6
English/Language Arts	77	9.8
Family and consumer science	7	.9
Foreign Language	14	1.8
General Curriculum	154	19.5
Gifted	7	.9
Math	43	5.4
Music	2	.3
Physical Education	3	.4
Professional Development	46	5.8
Science	44	5.6
Social Studies/History	38	4.8
Special Ed	21	2.7
Vocational/Technical Training	52	6.6
Do not work directly with students	125	15.8
Other	25	3.2
Total	789	100.0

6. What grade level(s) are you teaching during the 2005-2006 academic year?
Please select all that apply. (n = 791)

	Frequency	Percent "Yes"
Early Elementary	206	26.0
Upper Elementary	234	29.6
Middle School	275	34.8
High School	185	23.4
Do not work with students directly	153	19.2

7. How many years of experience do you have as a K-12 teacher (including 2005-2006 academic year)?

	Frequency	Percent
0-2 years	32	4.1
3-9 years	222	28.2
10-20 years	269	34.2
Over 20 years	235	29.9
Do not work with students directly	29	3.7
Total	787	100.0

8. Please indicate your involvement with the following Intel® Teach to the Future programs.

8_1. Essentials Course (40 hours)

	Frequency	Percent
Trained as a Master Teacher	342	46.0
Trained as a Participant Teacher	86	11.6
Trained as both	40	5.4
Did not previously participate	275	37.0
Total	743	100.0

8_2. Previous Intel Workshop on Interactive Thinking Tools

	Frequency	Percent
Trained as a Master Teacher	198	32.2
Trained as a Participant Teacher	24	3.9
Trained as both	11	1.8
Did not previously participate	382	62.1
Total	615	100.0

8_3. Leadership Forum

	Frequency	Percent
Trained as a Master Leader	21	4.1
Trained as a Participant Leader	32	6.2
Trained as both	5	1.0
Did not previously participate	455	88.7
Total	513	100.0

RESPONSE TO THE WORKSHOP ON TEACHING THINKING WITH TECHNOLOGY

9. Having completed this workshop, how well prepared do you feel to do the following activities? For each item below, select the choice that best represents your experience.

9_1. Support my students in using online learning tools in their schoolwork

	Frequency	Percent
Not prepared	6	.8
Somewhat prepared	35	4.4
Adequately prepared	217	27.5
Very prepared	525	66.5
No Opinion	6	.8
Total	789	100.0

9_2. Integrate the *Visual Ranking Tool* into my curriculum

	Frequency	Percent
Not prepared	4	.5
Somewhat prepared	27	3.4
Adequately prepared	164	20.8
Very prepared	585	74.2
No Opinion	8	1.0
Total	788	100.0

9_3. Integrate the *Seeing Reason Tool* into my curriculum

	Frequency	Percent
Not prepared	5	.6
Somewhat prepared	54	6.9
Adequately prepared	218	27.8
Very prepared	504	64.2
No Opinion	4	.5
Total	785	100.0

9_4. Integrate the *Showing Evidence Tool* into my curriculum

	Frequency	Percent
Not prepared	8	1.0
Somewhat prepared	75	9.5
Adequately prepared	290	36.8
Very prepared	408	51.8
No Opinion	7	.9
Total	788	100.0

9_5. Create opportunities for students to collaborate with their peers

	Frequency	Percent
Not prepared	3	.4
Somewhat prepared	30	3.8
Adequately prepared	171	21.6
Very prepared	574	72.6
No Opinion	10	1.3
Total	788	99.6

9_6. Support my students in deeper levels of thinking through using the online thinking tools

	Frequency	Percent
Not prepared	8	1.0
Somewhat prepared	24	3.0
Adequately prepared	222	28.1
Very prepared	525	66.4
No Opinion	10	1.3
Total	789	99.7

9_7. Creating and use Curriculum Framing Questions

	Frequency	Percent
Not prepared	5	.6
Somewhat prepared	41	5.2
Adequately prepared	272	34.5
Very prepared	459	58.2
No Opinion	12	1.5
Total	789	100.0

9_8. Engage students in critical thinking about complex issues

	Frequency	Percent
Not prepared	5	.6
Somewhat prepared	35	4.4
Adequately prepared	240	30.5
Very prepared	493	62.6
No Opinion	14	1.8
Total	787	100.0

9_9. Assess my students' learning as they engage with these online tools

	Frequency	Percent
Not prepared	7	.9
Somewhat prepared	51	6.5
Adequately prepared	266	33.9
Very prepared	450	57.3
No Opinion	11	1.4
Total	785	100.0

10. To what extent do the following statements describe the workshop you just completed? For each item below, select the choice that best represents your experience.

10_1. Teaching how the *Visual Ranking Tool* can help support students to evaluate and prioritize information based on established criteria

	Frequency	Percent
Small extent	6	.8
Moderate extent	150	19.0
Great extent	632	80.1
No opinion	1	.1
Total	789	100.0

10_2. Teaching how the *Seeing Reason Tool* can enhance students' understanding of causal relationships

	Frequency	Percent
Small extent	11	1.4
Moderate extent	193	24.5
Great extent	583	74.1
Total	787	100.0

10_3. Teaching how the *Showing Evidence Tool* can help students develop claims and evaluate evidence

	Frequency	Percent
Not at all	2	.3
Small extent	16	2.0
Moderate extent	184	23.4
Great extent	584	74.1
No opinion	2	.3
Total	788	100.0

10_4. Provide useful, new strategies for developing inquiry based learning projects to implement in my classroom

	Frequency	Percent
Not at all	5	.6
Small extent	23	2.9
Moderate extent	188	23.9
Great extent	566	71.9
No opinion	5	.6
Total	787	100.0

10_5. Introduced new resources and strategies for developing students' higher-order thinking skills

	Frequency	Percent
Not at all	3	.4
Small extent	17	2.2
Moderate extent	145	18.4
Great extent	616	78.2
No opinion	7	.9
Total	788	100.0

10_6. Guided me in the use of Curriculum-Framing Questions as a method of project planning

	Frequency	Percent
Not at all	4	.5
Small extent	25	3.2
Moderate extent	217	27.6
Great extent	533	67.8
No opinion	7	.9
Total	786	100.0

10_7. Provided opportunities to collaborate and share ideas with other teachers

	Frequency	Percent
Small extent	19	2.4
Moderate extent	104	13.2
Great extent	656	83.4
No opinion	8	1.0
Total	787	100.0

10_8. Prepared me to support my students' higher-order thinking through the use of visual representations

	Frequency	Percent
Not at all	2	.3
Small extent	15	1.9
Moderate extent	151	19.2
Great extent	611	77.5
No opinion	9	1.1
Total	788	100.0

10_9. Provided me with new resources and ideas about how to assess my students' learning

	Frequency	Percent
Not at all	6	.8
Small extent	18	2.3
Moderate extent	203	26.0
Great extent	546	69.8
No opinion	9	1.2
Total	782	100.0

11. Select the response that best describes your plan to use the following online thinking tool(s) with students in your classroom. *Select all that apply (n = 791)*

	Frequency	Percent "Yes"
I plan to use the <i>Seeing Reason Tool</i>	651	82.3
I plan to use the <i>Visual Ranking Tool</i>	698	88.2
I plan to use the <i>Showing Evidence Tool</i>	621	78.5
I do not plan on using any of these tools	8	1.0
I do not work directly with students	113	14.3

12. Consider the online thinking tools you learned about during the workshop. Of the statements presented below, which one best describes the greatest benefit you see for using the online thinking tools with students?

	Frequency	Percent
To provide students the opportunity to visualize the thinking process	193	24.5
To promote discussion in the classroom	46	5.8
To encourage collaborative work among students	44	5.6
To engage students in project based learning activities	102	12.9
To support the diverse needs of my students	24	3.0
To connect my curriculum with the higher-order thinking skills	377	47.8
I do not see a benefit to using these tools with students	3	.4
Total	789	100.0

13. Think about the trainer(s) who led your workshop and his/her leadership of the workshop. For each item below, select the choice that best represents your experience. How successful was the trainer(s) at:

13_1. Exposing participants to the overall score and sequence of the curriculum

	Frequency	Percent
Not successful	6	.8
Somewhat successful	23	2.9
Adequately successful	137	17.4
Very successful	620	78.8
No Opinion	1	.1
Total	787	100.0

13_2. Helping participants to understand the interactive thinking tools and their workspaces

	Frequency	Percent
Not successful	4	.5
Somewhat successful	20	2.5
Adequately successful	109	13.9
Very successful	651	82.7
No Opinion	3	.4
Total	787	100.0

13_3. Helping participants to think about ways to manage a classroom project using an online environment

	Frequency	Percent
Not successful	10	1.3
Somewhat successful	38	4.8
Adequately successful	180	22.8
Very successful	555	70.4
No Opinion	5	.6
Total	788	100.0

13_4. Exposing participants to a project approach to teaching and learning

	Frequency	Percent
Not successful	5	.6
Somewhat successful	17	2.2
Adequately successful	135	17.1
Very successful	628	79.7
No Opinion	3	.4
Total	788	100.0

13_5. Assisting participants in understanding deeper thinking through thinking models

	Frequency	Percent
Not successful	8	1.0
Somewhat successful	41	5.2
Adequately successful	173	22.0
Very successful	560	71.1
No Opinion	6	.8
Total	788	100.0

13_6. Assisting participants in developing Curriculum-Framing Questions

	Frequency	Percent
Not successful	10	1.3
Somewhat successful	30	3.8
Adequately successful	181	23.0
Very successful	562	71.5
No Opinion	3	.4
Total	786	100.0

13_7. Support participants' development of project ideas

	Frequency	Percent
Not successful	4	.5
Somewhat successful	27	3.4
Adequately successful	137	17.5
Very successful	612	78.2
No Opinion	3	.4
Total	783	100.0

13_8. Helping participants understand and develop assessment methods that would be used throughout the project

	Frequency	Percent
Not successful	12	1.5
Somewhat successful	31	3.9
Adequately successful	236	29.9
Very successful	503	63.8
No Opinion	6	.8
Total	788	100.0

13_9. Modeling the instruction of the workshop as it should be delivered to Participant Teachers

	Frequency	Percent
Not successful	21	2.7
Somewhat successful	30	3.8
Adequately successful	123	15.6
Very successful	609	77.4
No Opinion	4	.5
Total	787	100.0

14. Think about the trainer(s) who led your workshop. For each item below, select the choice that best represents your experience. Consider how prepared your trainer(s) was for the following:

14_1. Responding to participants questions about exploring deeper thinking in the classroom

	Frequency	Percent
Not prepared	3	.4
Somewhat prepared	18	2.3
Adequately prepared	110	14.0
Very prepared	655	83.1
No Opinion	2	.3
Total	788	100.0

14_2. Helping participants through the process of creating a practice ranking list and project idea using the *Visual Ranking Tool*

	Frequency	Percent
Not prepared	4	.5
Somewhat prepared	15	1.9
Adequately prepared	80	10.2
Very prepared	685	87.3
No Opinion	1	.1
Total	785	100.0

14_3. Helping participants though the process of creating a practice map and project idea using the Seeing Reason Tool

	Frequency	Percent
Not prepared	5	.6
Somewhat prepared	16	2.0
Adequately prepared	93	11.9
Very prepared	669	85.3
No Opinion	1	.1
Total	784	100.0

14_4. Helping participants through the process of creating a practice case and project idea using the Showing Evidence Tool

	Frequency	Percent
Not prepared	6	.8
Somewhat prepared	21	2.7
Adequately prepared	118	15.0
Very prepared	640	81.3
No Opinion	2	.3
Total	787	100.0

14_5. Helping participants through the process of creating their own unit plan that integrates one or more of the online thinking tools

	Frequency	Percent
Not prepared	7	.9
Somewhat prepared	25	3.2
Adequately prepared	160	20.3
Very prepared	593	75.3
No Opinion	3	.4
Total		100.0

14_6. Assessing participants' grasp of new information learned over the course of the workshop

	Frequency	Percent
Not prepared	10	1.3
Somewhat prepared	26	3.3
Adequately prepared	171	21.7
Very prepared	578	73.3
No Opinion	4	.5
Total	789	100.0

14_7. Helping participants understand different assessment methods and tools

	Frequency	Percent
Not prepared	10	1.3
Somewhat prepared	30	3.8
Adequately prepared	181	23.0
Very prepared	562	71.5
No Opinion	3	.4
Total	786	100.0

14_8. Facilitating your overall experience of this workshop

	Frequency	Percent
Not prepared	10	1.3
Somewhat prepared	20	2.6
Adequately prepared	114	14.5
Very prepared	639	81.5
No Opinion	1	.1
Total	784	100.0

15. Reflecting on the workshop experience, how helpful will each of the following modules, activities, or workshop elements be to you *as an educator preparing to use the online thinking tools in the classroom?*

15_1. Training materials such as the Curriculum Guide, online resources, and presentation slides

	Frequency	Percent
Not at all	3	.4
Small extent	12	1.5
Moderate extent	151	19.2
Great extent	616	78.4
No opinion	4	.5
Total	786	100.0

15_2. Exploring the Master Teachers notes and comments found in the margins of the workshop Curriculum Guide

	Frequency	Percent
Not at all	2	.3
Small extent	30	3.8
Moderate extent	179	22.7
Great extent	572	72.5
No opinion	6	.8
Total	789	100.0

15_3. Exploring different models for categorizing thinking skills

	Frequency	Percent
Not at all	4	.5
Small extent	47	6.0
Moderate extent	266	33.8
Great extent	467	59.3
No opinion	4	.5
Total	788	100.0

15_4. Digging deeply into how to encourage higher-order thinking in the classroom

	Frequency	Percent
Not at all	5	.6
Small extent	24	3.0
Moderate extent	189	24.0
Great extent	564	71.7
No opinion	5	.6
Total	787	100.0

15_5. Practice with Curriculum-Framing Questions

	Frequency	Percent
Not at all	2	.3
Small extent	29	3.7
Moderate extent	255	32.4
Great extent	497	63.2
No opinion	3	.4
Total	786	100.0

15_6. Creating Curriculum-Framing Questions for my own classroom

	Frequency	Percent
Not at all	2	.3
Small extent	32	4.1
Moderate extent	236	30.1
Great extent	505	64.4
No opinion	9	1.1
Total	784	100.0

15_7. Creating practice project ideas with the online thinking tools

	Frequency	Percent
Not at all	2	.3
Small extent	12	1.5
Moderate extent	129	16.4
Great extent	639	81.2
No opinion	5	.6
Total	787	100.0

15_8. Creating a unit plan to help guide the implementation of a project with students

	Frequency	Percent
Not at all	5	.6
Small extent	29	3.7
Moderate extent	170	21.7
Great extent	578	73.6
No opinion	3	.4
Total	785	100.0

15_9. Discussing the use and methods of assessment for student learning

	Frequency	Percent
Not at all	4	.5
Small extent	27	3.4
Moderate extent	257	32.7
Great extent	496	63.1
No opinion	2	.3
Total	786	100.0

15_10. Observing how the Senior Trainer modeled ways to instruct using the tools in a classroom setting

	Frequency	Percent
Not at all	12	1.5
Small extent	35	4.4
Moderate extent	167	21.2
Great extent	571	72.5
No opinion	3	.4
Total	788	100.0

15_11. Listening to the Senior Trainer's explanation of core workshop elements such as the tools, thinking skills, and supporting theory

	Frequency	Percent
Not at all	9	1.1
Small extent	32	4.1
Moderate extent	160	20.4
Great extent	578	73.8
No opinion	4	.5
Total	783	100.0

15_12. Discussing and collaborating with other Master Teachers

	Frequency	Percent
Not at all	3	.4
Small extent	12	1.5
Moderate extent	127	16.2
Great extent	639	81.4
No opinion	4	.5
Total	785	100.0

15_13. Reflecting on your own teaching practices

	Frequency	Percent
Not at all	5	.6
Small extent	16	2.0
Moderate extent	147	18.8
Great extent	599	76.6
No opinion	15	1.9
Total	782	100.0

16. Reflecting on the workshop experience, how helpful will each of the following modules, activities, or workshop elements be to you *as someone who will train other educators*?

16_1. Training materials such as the Curriculum Guide, online resources, and presentation slides

	Frequency	Percent
Not at all	2	.3
Small extent	11	1.4
Moderate extent	103	13.1
Great extent	669	85.1
No opinion	1	.1
Total	786	100.0

16_2. Exploring the Master Teachers notes and comments found in the margins of the workshop Curriculum Guide

	Frequency	Percent
Not at all	3	.4
Small extent	19	2.4
Moderate extent	135	17.2
Great extent	625	79.7
No opinion	2	.3
Total	784	100.0

16_3. Exploring different models for categorizing thinking skills

	Frequency	Percent
Not at all	3	.4
Small extent	31	3.9
Moderate extent	213	27.1
Great extent	536	68.3
No opinion	2	.3
Total	785	100.0

16_4. Digging deeply into how to encourage higher-order thinking in the classroom

	Frequency	Percent
Not at all	2	.3
Small extent	19	2.4
Moderate extent	166	21.2
Great extent	594	75.9
No opinion	2	.3
Total	783	100.0

16_5. Practice with Curriculum-Framing Questions

	Frequency	Percent
Not at all	2	.3
Small extent	22	2.8
Moderate extent	168	21.5
Great extent	590	75.4
No opinion	1	.1
Total	783	100.0

16_6. Creating Curriculum-Framing Questions for my own classroom

	Frequency	Percent
Not at all	2	.3
Small extent	24	3.1
Moderate extent	177	22.6
Great extent	576	73.6
No opinion	4	.5
Total	783	100.0

16_7. Creating practice project ideas with the online thinking tools

	Frequency	Percent
Not at all	2	.3
Small extent	8	1.0
Moderate extent	122	15.6
Great extent	649	83.0
No opinion	1	.1
Total	782	100.0

16_8. Creating a unit plan to help guide the implementation of a project with students

	Frequency	Percent
Not at all	3	.4
Small extent	9	1.1
Moderate extent	150	19.1
Great extent	621	79.2
No opinion	1	.1
Total	784	100.0

16_9. Discussing the use and methods of assessment for student learning

	Frequency	Percent
Not at all	2	.3
Small extent	16	2.0
Moderate extent	183	23.4
Great extent	580	74.2
No opinion	1	.1
Total	782	100.0

16_10. Observing how the Senior Trainer modeled ways to instruct using the tools in a classroom setting

	Frequency	Percent
Not at all	10	1.3
Small extent	25	3.2
Moderate extent	158	20.2
Great extent	587	75.0
No opinion	3	.4
Total	783	100.0

16_11. Listening to the Senior Trainer's explanation of core workshop elements such as the tools, thinking skills, and supporting theory

	Frequency	Percent
Not at all	10	1.3
Small extent	25	3.2
Moderate extent	149	19.0
Great extent	596	76.1
No opinion	3	.4
Total	783	100.0

16_12. Discussing and collaborating with other Master Teachers

	Frequency	Percent
Not at all	2	.3
Small extent	13	1.7
Moderate extent	113	14.5
Great extent	648	83.0
No opinion	5	.6
Total	781	100.0

16_13. Reflecting on your own teaching practices

	Frequency	Percent
Not at all	2	.3
Small extent	17	2.2
Moderate extent	137	17.8
Great extent	603	78.3
No opinion	11	1.4
Total	770	100.0

17. How well prepared do you feel to present each of the following formats of the Workshop on Teaching Thinking with Technology to teachers in your school or district?

17_1. Teaching Thinking with Technology using only the
Visual Ranking Tool

	Frequency	Percent
Not prepared	2	.3
Somewhat prepared	53	6.7
Adequately prepared	182	23.1
Very prepared	551	69.8
No Opinion	1	.1
Total	789	100.0

17_2. Teaching Thinking with Technology using the *Visual Ranking and Seeing Reason Tool*

	Frequency	Percent
Not prepared	7	.9
Somewhat prepared	66	8.4
Adequately prepared	250	31.8
Very prepared	462	58.8
No Opinion	1	.1
Total	786	100.0

17_3. Teaching Thinking with Technology using the *Visual Ranking and Showing Evidence Tool*

	Frequency	Percent
Not prepared	7	.9
Somewhat prepared	101	12.9
Adequately prepared	312	39.7
Very prepared	364	46.4
No Opinion	1	.1
Total	785	100.0

17_4. Teaching Thinking with Technology using all three tools

	Frequency	Percent
Not prepared	13	1.7
Somewhat prepared	85	10.8
Adequately prepared	333	42.4
Very prepared	353	45.0
No Opinion	1	.1
Total	785	100.0

18. Please select the statement that best describes your feelings of readiness to lead a Workshop on Teaching Thinking with Technology for others following this five-day workshop experience:

	Frequency	Percent
I feel ready to lead a workshop at this time	159	20.2
I feel I will be ready after reviewing the curriculum	359	45.5
I feel I will be ready after I use the tools in my classroom	156	19.8
I feel ready to lead a workshop with the support of a Master Teacher	101	12.8
I do not feel ready to lead a workshop without additional training	14	1.8
Total	789	100.0

19. Would you recommend this workshop to a friend or colleague?

	Frequency	Percent
Definitely not	4	.5
Probably not	46	5.8
Probably yes	241	30.5
Definitely yes	498	63.1
Total	789	100.0

Appendix C: Frequencies of Surveys for End-of-Training Workshop on Teaching Thinking with Technology - Participant Teachers (*Visual Ranking only; Visual Ranking and Seeing Reason; Visual Ranking and Showing Evidence; Visual Ranking, Seeing Reason, and Showing Evidence*) (n=386)

(A1) In what state do you teach?

	Frequency	Percent
Alabama	6	1.6
Arizona	17	4.4
California	9	2.3
Colorado	15	3.9
Florida	116	30.1
Kansas	11	2.8
Massachusetts	1	.3
Mississippi	33	8.5
New Mexico	15	3.9
Ohio	1	.3
South Dakota	10	2.6
Texas	131	33.9
Wisconsin	20	5.2
Wyoming	1	.3
Total	386	100.0

(A2) Which of the following best describes the professional role you play in your school district?

	Frequency	Percent
Classroom teacher	330	85.5
Enrichment or resource teacher	23	6.0
Technology coordinator, media specialist, or librarian	17	4.4
Other professional staff	11	2.8
Administrator	2	.5
Other	3	.8
Total	386	100.0

(A3) What is the primary subject you teach?

	Frequency	Percent
Arts	5	1.3
ESL	14	3.7
Computer Science	11	2.9
English/Language Arts	66	17.3
Family and consumer science	3	.8
Foreign Language	14	3.7
General Curriculum	100	26.2
Gifted	6	1.6
Math	36	9.4
Music	7	1.8
Physical Education	4	1.0
Professional Development	1	.3
Science	39	10.2
Social Studies/History	21	5.5
Special Ed	27	7.1
Vocational/Technical Training	10	2.6
Do not work directly with students	4	1.0
Other	14	3.7
Total	382	100.0

(A4) What grade level(s) are you teaching during the 2005-2006 academic year?
Please select all that apply.

	Frequency	Percent "Yes"
Early Elementary	141	36.4
Upper Elementary	98	25.3
Middle School	88	22.7
High School	101	26.1
Do not work with students directly	2	.5

(A5) How many years of experience do you have as a K-12 teacher (including the 2005-2006 academic year)?

	Frequency	Percent
0-2 years	35	9.1
3-9 years	127	33.0
10-20 years	108	28.1
Over 20 years	113	29.4
Do not work with students directly	2	.5
Total	385	100.0

(A7) Please indicate your involvement with the following Intel® Teach to the Future programs:

A7_1. Essentials Course (40 hours)

	Frequency	Percent
Trained as a Master Teacher/Leader	3	.9
Trained as a Participant Teacher/Leader	185	55.9
Trained as both	1	.3
Did not previously participate	142	42.9
Total	331	100.0

A7_2. Previous Intel Workshop on Interactive Thinking Tools

	Frequency	Percent
Trained as a Master Teacher/Leader	4	1.3
Trained as a Participant Teacher/Leader	138	44.2
Trained as both	2	.6
Did not previously participate	168	53.8
Total	312	100.0

A7_3. Leadership Forum

	Frequency	Percent
Trained as a Participant Teacher/Leader	7	3.0
Did not previously participate	227	97.0
Total	234	100.0

(A8) Please select the number of weeks and the number of hours per week that you attended this Workshop on Teaching Thinking with Technology

A8_1. Number of weeks

	Frequency	Percent
1-8 weeks	320	94.7
More than 8 weeks	18	5.3
Total	338	100.0

A8_2. Number of hours per week

	Frequency	Percent
1-8 hours/week	125	36.3
More than 8 hours/week	219	63.7
Total	344	100.0

(A9) Please indicate which online thinking tools were covered in the workshop you just completed

	Frequency	Percent
<i>Visual Ranking only</i>	163	42.3
<i>Visual Ranking and Seeing Reason</i>	40	10.4
<i>Visual Ranking and Showing Evidence</i>	18	4.7
<i>Visual Ranking, Showing Evidence, and Seeing Reason</i>	164	42.6
Total	385	100.0

B. RESPONSE TO THE WORKSHOP ON VISUAL RANKING

(B1) Having completed this workshop, how well prepared do you feel to do the following activities? For each item below, select the choice that best represents your experience.

B1. Support my students in using online learning tools in their schoolwork

	Frequency	Percent
Somewhat prepared	28	17.3
Adequately prepared	65	40.1
Very prepared	69	42.6
Total	162	100.0

B2. Integrate the *Visual Ranking Tool* into my curriculum

	Frequency	Percent
Not prepared	1	.6
Somewhat prepared	25	15.6
Adequately prepared	59	36.9
Very prepared	75	46.9
Total	160	100.0

B3. Create opportunities for students to collaborate with their peers

	Frequency	Percent
Not prepared	1	.6
Somewhat prepared	15	9.2
Adequately prepared	54	33.1
Very prepared	93	57.1
Total	163	100.0

B4. Support my students in deeper levels of thinking through the use of the *Visual Ranking Tool*

	Frequency	Percent
Somewhat prepared	20	12.3
Adequately prepared	61	37.4
Very prepared	82	50.3
Total	163	100.0

B5. Creating and use Curriculum-Framing Questions in my classroom

	Frequency	Percent
Somewhat prepared	13	8.1
Adequately prepared	72	44.7
Very prepared	74	46.0
No Opinion	2	1.2
Total	161	100.0

B6. Engage students in critical thinking about complex issues

	Frequency	Percent
Not prepared	2	1.2
Somewhat prepared	15	9.2
Adequately prepared	51	31.3
Very prepared	92	56.4
No Opinion	3	1.8
Total	163	100.0

B7. Assess my students' learning as they engage with these online tools

	Frequency	Percent
Not prepared	3	1.9
Somewhat prepared	25	15.5
Adequately prepared	62	38.5
Very prepared	70	43.5
No Opinion	1	.6
Total	161	100.0

(B2) To what extent do you the following statements describe the workshop you just completed? For each item below, select the choice that best represents your experience.

B2_1. Teaching how the *Visual Ranking Tool* can help support students to evaluate and prioritize information based on established criteria

	Frequency	Percent
Not at all	1	.6
Small extent	2	1.2
Moderate extent	33	20.5
Great extent	125	77.6
Total	161	100.0

B2_2. Provide useful, new strategies for developing inquiry based learning projects to implement in my classroom

	Frequency	Percent
Not at all	1	.6
Small extent	2	1.2
Moderate extent	47	29.0
Great extent	112	69.1
Total	162	100.0

B2_3. Introduced new resources and strategies for developing students' higher-order thinking skills

	Frequency	Percent
Not at all	1	.6
Small extent	3	1.9
Moderate extent	35	21.6
Great extent	123	75.9
Total	162	100.0

B2_4. Guided me in the use of Curriculum-Framing Questions as a method of project planning

	Frequency	Percent
Small extent	5	3.1
Moderate extent	44	27.2
Great extent	112	69.1
No opinion	1	.6
Total	162	100.0

B2_5. Provided opportunities to collaborate and share ideas with other teachers

	Frequency	Percent
Small extent	4	2.5
Moderate extent	21	13.0
Great extent	135	83.3
No opinion	2	1.2
Total	162	100.0

B2_6. Prepared me to support my students' higher-order thinking through the use of visual representations

	Frequency	Percent
Small extent	2	1.2
Moderate extent	42	25.9
Great extent	117	72.2
No opinion	1	.6
Total	162	100.0

B2_7. Provided me with new resources and ideas about how to assess my students' learning

	Frequency	Percent
Small extent	4	2.5
Moderate extent	39	24.2
Great extent	117	72.7
No opinion	1	.6
Total	161	100.0

(B3) Select the response that best describes your plan to use the *Visual Ranking Tool* with students in your classroom. *Please select all that apply.*

	Frequency	Percent "Yes"
I plan to use the <i>Visual Ranking Tool</i>	151	93.4
I do not plan to use this tool	9	5.6
I do not work directly with students	1	.1
Total	161	100.0

(B4) Consider the online thinking tool you learned about during the workshop. Of the statements presented below, which one best describes the greatest benefit you see for using the *Visual Ranking Tool* with students?

	Frequency	Percent
To provide students the opportunity to visualize their thinking process	46	28.2
To promote discussion in the classroom	25	15.3
To encourage collaborative work among students	14	8.6
To engage students in project based learning activities	13	8.0
To support the diverse needs of my students	7	4.3
To connect my curriculum with higher-order thinking skills	57	35.0
I do not see a benefit to using these tools with students	1	.6
Total	163	100.0

(B5) Think about the trainer(s) who led your workshop and his/her leadership of the workshop. For each item below, select the choice that best represents your experience. How successful was the trainer(s) at:

B5_1. Exposing Participants to the overall score and sequence of the curriculum

	Frequency	Percent
Somewhat successful	4	2.5
Adequately successful	24	14.8
Very successful	134	82.7
Total	162	100.0

B5_2. Helping participants to understand the interactive thinking tools and their workspaces

	Frequency	Percent
Adequately successful	22	13.5
Very successful	141	86.5
Total	163	100.0

B5_3. Helping participants to think about ways to manage a classroom project using an online environment

	Frequency	Percent
Not successful	1	.6
Somewhat successful	4	2.5
Adequately successful	34	21.0
Very successful	123	75.9
Total	162	100.0

B5_4. Exposing participants to a project approach to teaching and learning

	Frequency	Percent
Somewhat successful	3	1.9
Adequately successful	22	13.8
Very successful	135	84.4
Total	160	100.0

B5_5. Assisting participants in understanding deeper thinking through thinking models

	Frequency	Percent
Somewhat successful	5	3.1
Adequately successful	21	13.0
Very successful	135	83.9
Total	161	100.0

B5_6. Assisting participants in developing Curriculum-Framing Questions

	Frequency	Percent
Somewhat successful	4	2.5
Adequately successful	33	20.5
Very successful	124	77.0
Total	161	100.0

B5_7. Support participants' development of project ideas

	Frequency	Percent
Somewhat successful	2	1.2
Adequately successful	32	19.6
Very successful	129	79.1
Total	163	100.0

B5_8. Helping participants understand and develop assessment methods that would be used throughout the project

	Frequency	Percent
Not successful	1	.6
Somewhat successful	6	3.7
Adequately successful	32	19.9
Very successful	122	75.8
Total	161	100.0

(B6) Think about the trainer(s) who led your workshop. For each item below, select the choice that best represents your experience. Consider how prepared your trainer(s) was for the following:

B6_1. Responding to participants questions about exploring deeper thinking in the classroom

	Frequency	Percent
Somewhat prepared	2	1.2
Adequately prepared	17	10.4
Very prepared	144	88.3
Total	163	100.0

B6_2. Helping participants through the process of creating a practice ranking list and project idea using the *Visual Ranking Tool*

	Frequency	Percent
Somewhat prepared	1	.6
Adequately prepared	17	10.4
Very prepared	145	89.0
Total	163	100.0

B6_3. Helping participants through the process of creating their own unit plan that integrates the *Visual Ranking Tool*

	Frequency	Percent
Adequately prepared	19	11.8
Very prepared	142	88.2
Total	161	100.0

B6_4. Assessing participants' grasp of new information learned over the course of the workshop

	Frequency	Percent
Somewhat prepared	2	1.2
Adequately prepared	24	14.8
Very prepared	136	84.0
Total	162	100.0

B6_5. Helping participants understand different assessment methods and tools

	Frequency	Percent
Somewhat prepared	2	1.3
Adequately prepared	29	18.1
Very prepared	129	80.6
Total	160	100.0

B6_6. Facilitating your overall experience of this workshop

	Frequency	Percent
Somewhat prepared	1	.6
Adequately prepared	17	10.7
Very prepared	141	88.7
Total	159	100.0

(B7) Reflecting on the workshop experience, how helpful will each of the following modules, activities, or workshop elements be to you as an educator preparing to use the *Visual Ranking Tool* in the classroom?

B7_1. Training materials such as the Curriculum Guide, online resources, and presentation slides

	Frequency	Percent
Not at all	1	.6
Small extent	2	1.3
Moderate extent	44	28.8
Great extent	106	68.8
No opinion	1	.6
Total	154	100.0

B7_2. Exploring different models for categorizing thinking skills

	Frequency	Percent
Not at all	1	.6
Small extent	6	3.7
Moderate extent	50	31.1
Great extent	103	64.0
No opinion	1	.6
Total	161	100.0

B7_3. Digging deeply into how to encourage higher-order thinking in the classroom

	Frequency	Percent
Not at all	1	.6
Small extent	6	3.8
Moderate extent	44	27.5
Great extent	109	68.1
Total	160	100.0

B7_4. Practice with Curriculum-Framing Questions

	Frequency	Percent
Not at all	1	.6
Small extent	6	3.7
Moderate extent	48	29.8
Great extent	106	65.8
Total	161	100.0

B7_5. Creating Curriculum-Framing Questions for my own classroom

	Frequency	Percent
Not at all	3	1.9
Small extent	6	3.8
Moderate extent	44	27.7
Great extent	106	66.7
Total	159	100.0

B7_6. Creating a practice project idea with the *Visual Ranking Tool*

	Frequency	Percent
Not at all	1	.6
Small extent	3	1.9
Moderate extent	25	15.5
Great extent	132	82.0
Total	161	100.0

B7_7. Creating a unit plan to help guide the implementation of a project with students

	Frequency	Percent
Small extent	7	4.4
Moderate extent	34	21.3
Great extent	119	74.4
Total	160	100.0

B7_8. Discussing the use and methods of assessment for student learning

	Frequency	Percent
Not at all	1	.6
Small extent	8	5.0
Moderate extent	49	30.4
Great extent	103	64.0
Total	161	100.0

B7_9. Observing how the Master Teacher modeled ways to instruct using the tools in a classroom setting

	Frequency	Percent
Not at all	2	1.2
Small extent	6	3.7
Moderate extent	41	25.5
Great extent	110	68.3
No opinion	2	1.2
Total	161	100.0

B7_10. Listening to the Master Teacher's explanation of core workshop elements such as the tools, thinking skills, and supporting theory

	Frequency	Percent
Not at all	1	.6
Small extent	6	3.7
Moderate extent	41	25.5
Great extent	110	68.3
No opinion	3	1.9
Total	161	100.0

B7_11. Discussing and collaborating with other Participant Teachers

	Frequency	Percent
Not at all	1	.6
Small extent	3	1.9
Moderate extent	28	17.4
Great extent	129	80.1
Total	161	100.0

B7_12. Reflecting on your own teaching practices

	Frequency	Percent
Not at all	1	.6
Small extent	4	2.5
Moderate extent	32	20.3
Great extent	121	76.6
Total	158	100.0

(B8) Would you recommend this workshop to a friend or a colleague?

	Frequency	Percent
Definitely not	2	1.2
Probably not	9	5.6
Probably yes	32	19.8
Definitely yes	119	73.5
Total	162	100.0

C. RESPONSE TO THE WORKSHOP ON *VISUAL RANKING* AND *SEEING REASON*

(C1) Having completed this workshop, how well prepared do you feel to do the following activities? For each item below, select the choice that best represents your experience.

C1. Support my students in using online learning tools in their schoolwork

	Frequency	Percent
Somewhat prepared	9	21.4
Adequately prepared	17	40.5
Very prepared	16	38.1
Total	42	100.0

C2. Integrate the *Visual Ranking Tool* into my curriculum

	Frequency	Percent
Somewhat prepared	4	9.5
Adequately prepared	17	40.5
Very prepared	21	50.0
Total	42	100.0

C3. Integrate the *Seeing Reason Tool* into my curriculum

	Frequency	Percent
Somewhat prepared	9	21.4
Adequately prepared	16	38.1
Very prepared	17	40.5
Total	42	100.0

C4. Create opportunities for students to collaborate with their peers

	Frequency	Percent
Somewhat prepared	2	4.8
Adequately prepared	18	42.9
Very prepared	22	52.4
Total	42	100.0

C5. Support my students in deeper levels of thinking through using the online thinking tools

	Frequency	Percent
Somewhat prepared	3	7.1
Adequately prepared	19	45.2
Very prepared	20	47.6
Total	42	100.0

C6. Creating and use Curriculum-Framing Questions in my classroom

	Frequency	Percent
Somewhat prepared	7	16.7
Adequately prepared	18	42.9
Very prepared	17	40.5
Total	42	100.0

C7. Engage students in critical thinking about complex issues

	Frequency	Percent
Not prepared	1	2.4
Somewhat prepared	5	11.9
Adequately prepared	18	42.9
Very prepared	18	42.9
Total	42	100.0

C8. Assess my students' learning as they engage with these online tools

	Frequency	Percent
Somewhat prepared	2	4.9
Adequately prepared	25	61.0
Very prepared	14	34.1
Total	41	100.0

(C2) To what extent do the following statements describe the workshop you just completed? For each item below, select the choice that best represents your experience.

C2_1. Teaching how the *Visual Ranking Tool* can help support students to evaluate and prioritize information based on established criteria

	Frequency	Percent	Valid Percent
Moderate extent	6	1.6	14.3
Great extent	36	9.3	85.7
Total	42	10.9	100.0

C2_2. Teaching how the *Seeing Reason Tool* can enhance students' understanding of causal relationships

	Frequency	Percent
Small extent	2	4.8
Moderate extent	8	19.0
Great extent	32	76.2
Total	42	100.0

C2_3. Provide useful, new strategies for developing inquiry based learning projects to implement in my classroom

	Frequency	Percent
Small extent	1	2.4
Moderate extent	11	26.8
Great extent	29	70.7
Total	41	100.0

C2_4. Introduced new resources and strategies for developing students' higher-order thinking skills

	Frequency	Percent
Small extent	1	2.4
Moderate extent	7	16.7
Great extent	34	81.0
Total	42	100.0

C2_5. Guided me in the use of Curriculum-Framing Questions as a method of project planning

	Frequency	Percent
Small extent	1	2.4
Moderate extent	11	26.8
Great extent	29	70.7
Total	41	100.0

C2_6. Provided opportunities to collaborate and share ideas with other teachers

	Frequency	Percent
Moderate extent	5	12.2
Great extent	36	87.8
Total	41	100.0

C2_7. Prepared me to support my students' higher-order thinking through the use of visual representations

	Frequency	Percent
Small extent	1	2.4
Moderate extent	6	14.3
Great extent	35	83.3
Total	42	100.0

C2_8. Provided me with new resources and ideas about how to assess my students' learning

	Frequency	Percent
Small extent	2	4.8
Moderate extent	10	23.8
Great extent	30	71.4
Total	42	100.0

(C3) Select the response that best describes your plan to use the following online thinking tool(s) with students in your classroom. *Please select all that apply. (n= 42)*

	Frequency	Percent "Yes"
I plan to use the <i>Seeing Reason Tool</i>	25	38.5
I plan to use the <i>Visual Ranking Tool</i>	40	61.5
I do not plan to use either of these tools	0	.0
I do not work directly with students	0	.0

(C4) Consider the online thinking tools you learned about during the workshop. Of the statements presented below, which one best describes the greatest benefit you see for using the online thinking tools with students?

	Frequency	Percent
To provide students the opportunity to visualize their thinking process	12	28.6
To promote discussion in the classroom	3	7.1
To encourage collaborative work among students	5	11.9
To engage students in project based learning activities	5	11.9
To support the diverse needs of my students	1	2.4
To connect my curriculum with the higher-order thinking skills	15	35.7
I do not see a benefit to using these tools with students	1	2.4
Total	42	100.0

(C5) Think about the trainer(s) who led your workshop and his/her leadership of the workshop. For each item below, select the choice that best represents your experience. How successful was the trainer(s) at:

C5_1. Exposing Participants to the overall score and sequence of the curriculum

	Frequency	Percent
Somewhat successful	2	4.8
Adequately successful	8	19.0
Very successful	32	76.2
Total	42	100.0

C5_2. Helping participants to understand the interactive thinking tools and their workspaces

	Frequency	Percent
Somewhat successful	1	2.4
Adequately successful	7	17.1
Very successful	33	80.5
Total	41	100.0

C5_3. Helping participants to think about ways to manage a classroom project using an online environment

	Frequency	Percent
Somewhat successful	3	7.1
Adequately successful	7	16.7
Very successful	32	76.2
Total	42	100.0

C5_4. Exposing participants to a project approach to teaching and learning

	Frequency	Percent
Somewhat successful	1	2.4
Adequately successful	8	19.0
Very successful	33	78.6
Total	42	100.0

C5_5. Assisting participants in understanding deeper thinking through thinking models

	Frequency	Percent
Somewhat successful	1	2.4
Adequately successful	7	16.7
Very successful	34	81.0
Total	42	100.0

C5_6. Assisting participants in developing Curriculum-Framing Questions

	Frequency	Percent
Adequately successful	11	26.2
Very successful	31	73.8
Total	42	100.0

C5_7. Support participants' development of project ideas

	Frequency	Percent
Adequately successful	6	14.3
Very successful	35	83.3
No Opinion	1	2.4
Total	42	100.0

C5_8. Helping participants understand and develop assessment methods that would be used throughout the project

	Frequency	Percent
Somewhat successful	3	7.1
Adequately successful	8	19.0
Very successful	30	71.4
No Opinion	1	2.4
Total	42	100.0

(C6) Think about the trainer(s) who led your workshop. For each item below, select the choice that best represents your experience. Consider how prepared your trainer(s) was for the following:

C6_1. Responding to participants questions about exploring deeper thinking in the classroom

	Frequency	Percent
Somewhat prepared	1	2.4
Adequately prepared	9	21.4
Very prepared	32	76.2
Total	42	100.0

C6_2. Helping participants through the process of creating a practice ranking list and project idea using the *Visual Ranking Tool*

	Frequency	Percent
Somewhat prepared	1	2.4
Adequately prepared	6	14.3
Very prepared	35	83.3
Total	42	100.0

C6_3. Helping participants through the process of creating a practice map and project idea using the *Seeing Reason Tool*

	Frequency	Percent
Somewhat prepared	1	2.4
Adequately prepared	9	21.4
Very prepared	32	76.2
Total	42	100.0

C6_4. Helping participants through the process of creating their own unit plan that integrates one or more of these tools

	Frequency	Percent
Somewhat prepared	1	2.4
Adequately prepared	9	21.4
Very prepared	32	76.2
Total	42	100.0

C6_5. Assessing participants' grasp of new information learned over the course of the workshop

	Frequency	Percent
Somewhat prepared	2	4.8
Adequately prepared	10	23.8
Very prepared	30	71.4
Total	42	100.0

C6_6. Helping participants understand different assessment methods and tools

	Frequency	Percent
Somewhat prepared	2	4.8
Adequately prepared	10	23.8
Very prepared	30	71.4
Total	42	100.0

C6_7. Facilitating your overall experience of this workshop

	Frequency	Percent
Somewhat prepared	2	4.8
Adequately prepared	7	16.7
Very prepared	33	78.6
Total	42	100.0

(C7) Reflecting on the workshop experience, how helpful will each of the following modules, activities, or

workshop elements be to you as an educator preparing to use the online thinking tools in the classroom?

C7_1. Training materials such as the Curriculum Guide and online resources

	Frequency	Percent
Small extent	2	4.8
Moderate extent	12	28.6
Great extent	28	66.7
Total	42	100.0

C7_2. Exploring different models for categorizing thinking skills

	Frequency	Percent
Small extent	5	11.9
Moderate extent	14	33.3
Great extent	23	54.8
Total	42	100.0

C7_3. Digging deeply into how to encourage higher-order thinking in the classroom

	Frequency	Percent
Moderate extent	10	23.8
Great extent	32	76.2
Total	42	100.0

C7_4. Practice with Curriculum-Framing Questions

	Frequency	Percent
Small extent	3	7.1
Moderate extent	14	33.3
Great extent	25	59.5
Total	42	100.0

C7_5. Creating Curriculum-Framing Questions for my own classroom

	Frequency	Percent
Small extent	2	4.8
Moderate extent	16	38.1
Great extent	24	57.1
Total	42	100.0

C7_6. Creating a practice project idea with the tools

	Frequency	Percent
Small extent	2	4.8
Moderate extent	11	26.2
Great extent	29	69.0
Total	42	100.0

C7_7. Creating a unit plan to help guide the implementation of a project with students

	Frequency	Percent
Small extent	3	7.1
Moderate extent	11	26.2
Great extent	28	66.7
Total	42	100.0

C7_8. Discussing the use and methods of assessment for student learning

	Frequency	Percent
Small extent	1	2.4
Moderate extent	15	35.7
Great extent	26	61.9
Total	42	100.0

C7_9. Observing how the Master Teacher modeled ways to instruct using the tools in a classroom setting

	Frequency	Percent
Small extent	5	11.9
Moderate extent	9	21.4
Great extent	28	66.7
Total	42	100.0

C7_10. Listening to the Master Teacher's explanation of core workshop elements such as the tools, thinking skills, and supporting theory

	Frequency	Percent
Small extent	3	7.1
Moderate extent	13	31.0
Great extent	26	61.9
Total	42	100.0

C7_11. Discussing and collaborating with other Participant Teachers

	Frequency	Percent
Moderate extent	7	16.7
Great extent	35	83.3
Total	42	100.0

C7_12. Reflecting on your own teaching practices

	Frequency	Percent
Probably yes	10	24.4
Definitely yes	31	75.6
Total	41	100.0

(C8) Would you recommend this workshop to a friend or a colleague?

	Frequency	Percent
Probably not	1	2.4
Probably yes	11	26.2
Definitely yes	30	71.4
Total	42	100.0

D. RESPONSE TO THE WORKSHOP ON *VISUAL RANKING AND SHOWING EVIDENCE*

(D1) Having completed this workshop, how well prepared do you feel to do the following activities? For each item below, select the choice that best represents your experience.

D1. Support my students in using online learning tools in their schoolwork

	Frequency	Percent
Not prepared	1	5.9
Somewhat prepared	3	17.6
Adequately prepared	6	35.3
Very prepared	7	41.2
Total	17	100.0

D2. Integrate the *Visual Ranking Tool* into my curriculum

	Frequency	Percent
Not prepared	1	5.9
Somewhat prepared	2	11.8
Adequately prepared	5	29.4
Very prepared	9	52.9
Total	17	100.0

D3. Integrate the *Showing Evidence Tool* into my curriculum

	Frequency	Percent
Not prepared	1	5.6
Somewhat prepared	5	27.8
Adequately prepared	6	33.3
Very prepared	5	27.8
No Opinion	1	5.6
Total	18	100.0

D4. Create opportunities for students to collaborate with their peers

	Frequency	Percent
Not prepared	1	5.6
Somewhat prepared	3	16.7
Adequately prepared	7	38.9
Very prepared	7	38.9
Total	18	100.0

D5. Support my students in deeper levels of thinking through using the online thinking tools

	Frequency	Percent
Not prepared	1	5.9
Somewhat prepared	3	17.6
Adequately prepared	6	35.3
Very prepared	7	41.2
Total	17	100.0

D6. Creating and use Curriculum-Framing Questions in my classroom

	Frequency	Percent
Not prepared	1	5.9
Somewhat prepared	3	17.6
Adequately prepared	4	23.5
Very prepared	9	52.9
Total	17	100.0

D7. Engage students in critical thinking about complex issues

	Frequency	Percent
Not prepared	1	5.9
Somewhat prepared	2	11.8
Adequately prepared	5	29.4
Very prepared	8	47.1
No Opinion	1	5.9
Total	17	100.0

D8. Assess my students' learning as they engage with these online tools

	Frequency	Percent
Not prepared	1	5.9
Somewhat prepared	2	11.8
Adequately prepared	6	35.3
Very prepared	8	47.1
Total	17	100.0

(D2) To what extent do the following statements describe the workshop you just completed? For each item below, select the choice that best represents your experience.

D2_1. Teaching how the *Visual Ranking Tool* can help support students to evaluate and prioritize information based on established criteria

	Frequency	Percent
Small extent	1	5.9
Moderate extent	4	23.5
Great extent	12	70.6
Total	17	100.0

D2_2. Teaching how the *Showing Evidence Tool* can help students develop claims and evaluate evidence

	Frequency	Percent
Small extent	2	11.8
Moderate extent	3	17.6
Great extent	12	70.6
Total	17	100.0

D2_3. Provide useful, new strategies for developing inquiry based learning projects to implement in my classroom

	Frequency	Percent
Small extent	1	5.9
Moderate extent	3	17.6
Great extent	13	76.5
Total	17	100.0

D2_4. Introduced new resources and strategies for developing students' higher-order thinking skills

	Frequency	Percent
Small extent	1	5.9
Moderate extent	5	29.4
Great extent	11	64.7
Total	17	100.0

D2_5. Guided me in the use of Curriculum-Framing Questions as a method of project planning

	Frequency	Percent
Small extent	1	5.9
Moderate extent	3	17.6
Great extent	13	76.5
Total	17	100.0

D2_6. Provided opportunities to collaborate and share ideas with other teachers

	Frequency	Percent
Not at all	1	5.9
Small extent	1	5.9
Moderate extent	3	17.6
Great extent	12	70.6
Total	17	100.0

D2_7. Prepared me to support my students' higher-order thinking through the use of visual representations

	Frequency	Percent
Small extent	1	5.9
Moderate extent	4	23.5
Great extent	12	70.6
Total	17	100.0

D2_8. Provided me with new resources and ideas about how to assess my students' learning

	Frequency	Percent
Small extent	1	5.9
Moderate extent	2	11.8
Great extent	14	82.4
Total	17	100.0

(D3) Select the response that best describes your plan to use the following online thinking tool(s) with students in your classroom. *Please select all that apply. (n= 17)*

	Frequency	Percent "Yes"
I plan to use the <i>Visual Ranking Tool</i>	15	51.8
I plan to use the <i>Showing Evidence Tool</i>	12	41.4
I do not plan on using either of these tools	1	3.4
I do not work directly with students	1	3.4

(D4) Consider the online thinking tools you learned about during the workshop. Of the statements presented below, which one best describes the greatest benefit you see for using the online thinking tools with students?

	Frequency	Percent
To provide students the opportunity to visualize their thinking process	5	27.8
To encourage collaborative work among students	2	11.1
To engage students in project based learning activities	6	33.3
To connect my curriculum with the higher-order thinking skills	5	27.8
Total	18	100.0

(D5) Think about the trainer(s) who led your workshop and his/her leadership of the workshop. For each item below, select the choice that best represents your experience. How successful was the trainer(s) at:

D5_1. Exposing Participants to the overall score and sequence of the curriculum

	Frequency	Percent
Somewhat successful	2	11.8
Adequately successful	1	5.9
Very successful	14	82.4
Total	17	100.0

D5_2. Helping participants to understand the interactive thinking tools and their workspaces

	Frequency	Percent
Somewhat successful	2	11.8
Adequately successful	2	11.8
Very successful	13	76.5
Total	17	100.0

D5_3. Helping participants to think about ways to manage a classroom project using an online environment

	Frequency	Percent
Somewhat successful	2	11.8
Adequately successful	3	17.6
Very successful	12	70.6
Total	17	100.0

D5_4. Exposing participants to a project approach to teaching and learning

	Frequency	Percent
Somewhat successful	2	11.8
Adequately successful	2	11.8
Very successful	13	76.5
Total	17	100.0

D5_5. Assisting participants in understanding deeper thinking through thinking models

	Frequency	Percent
Not successful	1	5.9
Somewhat successful	2	11.8
Adequately successful	2	11.8
Very successful	12	70.6
Total	17	100.0

D5_6. Assisting participants in developing Curriculum-Framing Questions

	Frequency	Percent
Somewhat successful	2	11.8
Adequately successful	2	11.8
Very successful	13	76.5
Total	17	100.0

D5_7. Support participants' development of project ideas

	Frequency	Percent
Somewhat successful	2	12.5
Adequately successful	1	6.3
Very successful	13	81.3
Total	16	100.0

D5_8. Helping participants understand and develop assessment methods that would be used throughout the project

	Frequency	Percent
Somewhat successful	2	11.8
Adequately successful	3	17.6
Very successful	12	70.6
Total	17	100.0

(D6) Think about the trainer(s) who led your workshop. For each item below, select the choice that best represents your experience. Consider how prepared your trainer(s) was for the following:

D6_1. Responding to participants questions about exploring deeper thinking in the classroom

	Frequency	Percent
Not prepared	1	5.6
Adequately prepared	6	33.3
Very prepared	11	61.1
Total	18	100.0

D6_2. Helping participants through the process of creating a practice ranking list and project idea using the *Visual Ranking Tool*

	Frequency	Percent
Somewhat prepared	1	5.6
Adequately prepared	4	22.2
Very prepared	13	72.2
Total	18	100.0

D6_3. Helping participants through the process of creating a practice case and project idea using the *Showing Evidence Tool*

	Frequency	Percent
Adequately prepared	6	33.3
Very prepared	12	66.7
Total	18	100.0

D6_4. Helping participants through the process of creating their own unit plan that integrates one or more of these tools

	Frequency	Percent
Somewhat prepared	1	5.9
Adequately prepared	2	11.8
Very prepared	14	82.4
Total	17	100.0

D6_5. Assessing participants' grasp of new information learned over the course of the workshop

	Frequency	Percent
Somewhat prepared	1	5.9
Adequately prepared	3	17.6
Very prepared	13	76.5
Total	17	100.0

D6_6. Helping participants understand different assessment methods and tools

	Frequency	Percent
Somewhat prepared	1	5.9
Adequately prepared	4	23.5
Very prepared	12	70.6
Total	17	100.0

D6_7. Facilitating your overall experience of this workshop

	Frequency	Percent
Adequately prepared	3	17.6
Very prepared	14	82.4
Total	17	100.0

(D7) Reflecting on the workshop experience, how helpful will each of the following modules, activities, or workshop elements be to you as an educator preparing to use the online thinking tools in the classroom?

D7_1. Training materials such as the Curriculum Guide and online resources

	Frequency	Percent
Moderate extent	6	35.3
Great extent	11	64.7
Total	17	100.0

D7_2. Exploring different models for categorizing thinking skills

	Frequency	Percent
Small extent	1	5.9
Moderate extent	3	17.6
Great extent	13	76.5
Total	17	100.0

D7_3. Digging deeply into how to encourage higher-order thinking in the classroom

	Frequency	Percent
Moderate extent	4	25.0
Great extent	12	75.0
Total	16	100.0

D7_4. Practice with Curriculum-Framing Questions

	Frequency	Percent
Moderate extent	4	23.5
Great extent	13	76.5
Total	17	100.0

D7_5. Creating Curriculum-Framing Questions for my own classroom

	Frequency	Percent
Moderate extent	3	18.8
Great extent	13	81.3
Total	16	100.0

D7_6. Creating a practice project idea with the interactive thinking tools

	Frequency	Percent
Moderate extent	5	29.4
Great extent	12	70.6
Total	17	100.0

D7_7. Creating a unit plan to help guide the implementation of a project with students

	Frequency	Percent
Moderate extent	4	23.5
Great extent	13	76.5
Total	17	100.0

D7_8. Discussing the use and methods of assessment for student learning

	Frequency	Percent
Moderate extent	7	41.2
Great extent	10	58.8
Total	17	100.0

D7_9. Observing how the Master Teacher modeled ways to instruct using the tools in a classroom setting

	Frequency	Percent
Not at all	1	5.9
Small extent	1	5.9
Moderate extent	3	17.6
Great extent	12	70.6
Total	17	100.0

D7_10. Listening to the Master Teacher's explanation of core workshop elements such as the tools, thinking skills, and supporting theory

	Frequency	Percent
Not at all	1	5.9
Moderate extent	4	23.5
Great extent	12	70.6
Total	17	100.0

D7_11. Discussing and collaborating with other Participant Teachers

	Frequency	Percent
Moderate extent	4	23.5
Great extent	13	76.5
Total	17	100.0

D7_12. Reflecting on your own teaching practices

	Frequency	Percent
Probably yes	3	21.4
Definitely yes	11	78.6
Total	14	100.0

(D8) Would you recommend this workshop to a friend or a colleague?

	Frequency	Percent
Probably not	2	11.1
Probably yes	6	33.3
Definitely yes	10	55.6
Total	18	100.0

E. RESPONSE TO THE WORKSHOP ON *VISUAL RANKING, SEEING REASON AND SHOWING EVIDENCE*

(E1) Having completed this workshop, how well prepared do you feel to do the following activities? For each item below, select the choice that best represents your experience.

E1. Support my students in using online learning tools in their schoolwork

	Frequency	Percent
Not prepared	4	2.4
Somewhat prepared	18	11.0
Adequately prepared	58	35.4
Very prepared	83	50.6
No Opinion	1	.6
Total	164	100.0

E2. Integrate the *Visual Ranking Tool* into my curriculum

	Frequency	Percent
Not prepared	2	1.2
Somewhat prepared	11	6.7
Adequately prepared	40	24.4
Very prepared	110	67.1
No Opinion	1	.6
Total	164	100.0

E3. Integrate the *Seeing Reason Tool* into my curriculum

	Frequency	Percent
Not prepared	5	3.1
Somewhat prepared	15	9.3
Adequately prepared	58	35.8
Very prepared	81	50.0
No Opinion	3	1.9
Total	162	100.0

E4. Integrate the *Showing Evidence Tool* into my curriculum

	Frequency	Percent
Not prepared	4	2.4
Somewhat prepared	32	19.5
Adequately prepared	54	32.9
Very prepared	72	43.9
No Opinion	2	1.2
Total	164	100.0

E5. Create opportunities for students to collaborate with their peers

	Frequency	Percent
Not prepared	2	1.2
Somewhat prepared	10	6.1
Adequately prepared	50	30.5
Very prepared	99	60.4
No Opinion	3	1.8
Total	164	100.0

E6. Support my students in deeper levels of thinking through using the online thinking tools

	Frequency	Percent
Not prepared	4	2.5
Somewhat prepared	14	8.6
Adequately prepared	43	26.4
Very prepared	99	60.7
No Opinion	3	1.8
Total	163	100.0

E7. Creating and use Curriculum-Framing Questions in my classroom

	Frequency	Percent
Not prepared	3	1.8
Somewhat prepared	12	7.4
Adequately prepared	46	28.2
Very prepared	99	60.7
No Opinion	3	1.8
Total	163	100.0

E8. Engage students in critical thinking about complex issues

	Frequency	Percent
Not prepared	3	1.9
Somewhat prepared	14	8.6
Adequately prepared	39	24.1
Very prepared	104	64.2
No Opinion	2	1.2
Total	162	100.0

E9. Assess my students' learning as they engage with these online tools

	Frequency	Percent
Not prepared	4	2.5
Somewhat prepared	12	7.4
Adequately prepared	53	32.7
Very prepared	90	55.6
No Opinion	3	1.9
Total	162	100.0

(E2) To what extent do the following statements describe the workshop you just completed? For each item below, select the choice that best represents your experience

E2_1. Teaching how the *Visual Ranking Tool* can help support students to evaluate and prioritize information based on established criteria

	Frequency	Percent
Not at all	1	.6
Small extent	5	3.0
Moderate extent	36	22.0
Great extent	120	73.2
No opinion	2	1.2
Total	164	100.0

E2_2. Teaching how the *Seeing Reason Tool* can enhance students' understanding of causal relationships

	Frequency	Percent
Not at all	3	1.8
Small extent	8	4.9
Moderate extent	55	33.5
Great extent	95	57.9
No opinion	3	1.8
Total	164	100.0

E2_3. Teaching how the *Showing Evidence Tool* can help students develop claims and evaluate evidence

	Frequency	Percent
Not at all	3	1.8
Small extent	8	4.9
Moderate extent	49	29.9
Great extent	101	61.6
No opinion	3	1.8
Total	164	100.0

E2_4. Provide useful, new strategies for developing inquiry based learning projects to implement in my classroom

	Frequency	Percent
Not at all	4	2.5
Small extent	6	3.7
Moderate extent	44	27.0
Great extent	107	65.6
No opinion	2	1.2
Total	163	100.0

E2_5. Introduced new resources and strategies for developing students' higher-order thinking skills

	Frequency	Percent
Not at all	2	1.2
Small extent	8	4.9
Moderate extent	35	21.5
Great extent	116	71.2
No opinion	2	1.2
Total	163	100.0

E2_6. Guided me in the use of Curriculum-Framing Questions as a method of project planning

	Frequency	Percent
Not at all	3	1.8
Small extent	7	4.3
Moderate extent	48	29.3
Great extent	103	62.8
No opinion	3	1.8
Total	164	100.0

E2_7. Provided opportunities to collaborate and share ideas with other teachers

	Frequency	Percent
Not at all	2	1.2
Small extent	8	4.9
Moderate extent	29	17.9
Great extent	117	72.2
No opinion	6	3.7
Total	162	100.0

E2_8. Prepared me to support my students' higher-order thinking through the use of visual representations

	Frequency	Percent
Not at all	4	2.5
Small extent	6	3.7
Moderate extent	32	19.6
Great extent	119	73.0
No opinion	2	1.2
Total	163	100.0

E2_9. Provided me with new resources and ideas about how to assess my students' learning

	Frequency	Percent
Not at all	5	3.0
Small extent	6	3.7
Moderate extent	39	23.8
Great extent	112	68.3
No opinion	2	1.2
Total	164	100.0

(E3) Select the response that best describes your plan to use the following online thinking tool(s) with students in your classroom. *Please select all that apply.* (n= 164)

	Frequency	Percent
I plan to use the <i>Visual Ranking Tool</i>	149	38.9
I plan to use the <i>Seeing Reason Tool</i>	114	29.8
I plan to use the <i>Showing Evidence Tool</i>	108	28.2
I do not plan on using any of these tools	10	2.6
I do not work directly with students	2	.5

(E4) Consider the online thinking tools you learned about during the workshop. Of the statements presented below, which one best describes the greatest benefit you see for using the online thinking tools with students?

	Frequency	Percent
To provide students the opportunity to visualize their thinking process	38	23.5
To promote discussion in the classroom	13	8.0
To encourage collaborative work among students	18	11.1
To engage students in project based learning activities	14	8.6
To support the diverse needs of my students	8	4.9
To connect my curriculum with the higher-order thinking skills	67	41.4
I do not see a benefit to using these tools with students	4	2.5
Total	162	100.0

(E5) Think about the trainer(s) who led your workshop and his/her leadership of the workshop. For each item below, select the choice that best represents your experience. How successful was the trainer(s) at:

E5_1. Exposing Participants to the overall score and sequence of the curriculum

	Frequency	Percent
Not successful	2	1.2
Somewhat successful	8	4.9
Adequately successful	27	16.5
Very successful	127	77.4
Total	164	100.0

E5_2. Helping participants to understand the interactive thinking tools and their workspaces

	Frequency	Percent
Not successful	2	1.2
Somewhat successful	5	3.0
Adequately successful	29	17.7
Very successful	128	78.0
Total	164	100.0

E5_3. Helping participants to think about ways to manage a classroom project using an online environment

	Frequency	Percent
Not successful	3	1.8
Somewhat successful	6	3.7
Adequately successful	41	25.0
Very successful	114	69.5
Total	164	100.0

E5_4. Exposing participants to a project approach to teaching and learning

	Frequency	Percent
Not successful	2	1.2
Somewhat successful	7	4.3
Adequately successful	29	17.7
Very successful	126	76.8
Total	164	100.0

E5_5. Assisting participants in understanding deeper thinking through thinking models

	Frequency	Percent
Not successful	4	2.4
Somewhat successful	7	4.3
Adequately successful	34	20.7
Very successful	118	72.0
No Opinion	1	.6
Total	164	100.0

E5_6. Assisting participants in developing Curriculum-Framing Questions

	Frequency	Percent
Not successful	3	1.8
Somewhat successful	6	3.7
Adequately successful	33	20.1
Very successful	120	73.2
No Opinion	2	1.2
Total	164	100.0

E5_7. Support participants' development of project ideas

	Frequency	Percent
Not successful	3	1.8
Somewhat successful	5	3.0
Adequately successful	28	17.1
Very successful	127	77.4
No Opinion	1	.6
Total	164	100.0

E5_8. Helping participants understand and develop assessment methods that would be used throughout the project

	Frequency	Percent
Not successful	5	3.1
Somewhat successful	6	3.7
Adequately successful	33	20.2
Very successful	119	73.0
Total	163	100.0

(E6) Think about the trainer(s) who led your workshop. For each item below, select the choice that best represents your experience. Consider how prepared your trainer(s) was for the following:

E6_1. Responding to participants questions about exploring deeper thinking in the classroom

	Frequency	Percent
Not prepared	1	.6
Somewhat prepared	4	2.5
Adequately prepared	29	17.8
Very prepared	129	79.1
Total	163	100.0

E6_2. Helping participants through the process of creating a practice ranking list and project idea using the *Visual Ranking Tool*

	Frequency	Percent
Not prepared	1	.6
Somewhat prepared	3	1.8
Adequately prepared	23	14.0
Very prepared	137	83.5
Total	164	100.0

E6_3. Helping participants through the process of creating a practice map and project idea using the *Showing Evidence Tool*

	Frequency	Percent
Not prepared	2	1.2
Somewhat prepared	3	1.8
Adequately prepared	32	19.6
Very prepared	124	76.1
No Opinion	2	1.2
Total	163	100.0

E6_4. Helping participants through the process of creating a practice case and project idea using the *Showing Evidence Tool*

	Frequency	Percent
Not prepared	2	1.2
Somewhat prepared	3	1.8
Adequately prepared	37	22.7
Very prepared	119	73.0
No Opinion	2	1.2
Total	163	100.0

E6_5. Helping participants through the process of creating their own unit plan that integrates one or more of these tools

	Frequency	Percent
Not prepared	1	.6
Somewhat prepared	6	3.7
Adequately prepared	28	17.1
Very prepared	128	78.0
No Opinion	1	.6
Total	164	100.0

E6_6. Assessing participants' grasp of new information learned over the course of the workshop

	Frequency	Percent
Not prepared	1	.6
Somewhat prepared	5	3.0
Adequately prepared	32	19.5
Very prepared	125	76.2
No Opinion	1	.6
Total	164	100.0

E6_7. Helping participants understand different assessment methods and tools

	Frequency	Percent
Not prepared	1	.6
Somewhat prepared	6	3.7
Adequately prepared	32	19.5
Very prepared	124	75.6
No Opinion	1	.6
Total	164	100.0

E6_8. Facilitating your overall experience of this workshop

	Frequency	Percent
Not prepared	1	.6
Somewhat prepared	4	2.5
Adequately prepared	34	21.0
Very prepared	122	75.3
No Opinion	1	.6
Total	162	100.0

(E7) Reflecting on the workshop experience, how helpful will each of the following modules, activities, or workshop elements be to you as an educator preparing to use the online thinking tools in the classroom?

E7_1. Training materials such as the Curriculum Guide and online resources

	Frequency	Percent
Not at all	1	.6
Small extent	11	6.7
Moderate extent	54	32.9
Great extent	96	58.5
No opinion	2	1.2
Total	164	100.0

E7_2. Exploring different models for categorizing thinking skills

	Frequency	Percent
Not at all	4	2.4
Small extent	23	14.0
Moderate extent	62	37.8
Great extent	74	45.1
No opinion	1	.6
Total	164	100.0

E7_3. Digging deeply into how to encourage higher-order thinking in the classroom

	Frequency	Percent
Not at all	1	.6
Small extent	9	5.5
Moderate extent	48	29.4
Great extent	105	64.4
Total	163	100.0

E7_4. Practice with Curriculum-Framing Questions

	Frequency	Percent
Not at all	1	.6
Small extent	15	9.2
Moderate extent	52	31.9
Great extent	95	58.3
Total	163	100.0

E7_5. Creating Curriculum-Framing Questions for my own classroom

	Frequency	Percent
Not at all	1	.6
Small extent	14	8.6
Moderate extent	52	31.9
Great extent	95	58.3
No opinion	1	.6
Total	163	100.0

E7_6. Creating a practice project idea with the online thinking tools

	Frequency	Percent
Not at all	2	1.2
Small extent	7	4.3
Moderate extent	46	28.4
Great extent	106	65.4
No opinion	1	.6
Total	162	100.0

E7_7. Creating a unit plan to help guide the implementation of a project with students

	Frequency	Percent
Not at all	1	.6
Small extent	8	4.9
Moderate extent	52	31.7
Great extent	102	62.2
No opinion	1	.6
Total	164	100.0

E7_8. Discussing the use and methods of assessment for student learning

	Frequency	Percent
Not at all	2	1.2
Small extent	10	6.1
Moderate extent	61	37.2
Great extent	90	54.9
No opinion	1	.6
Total	164	100.0

E7_9. Observing how the Master Teacher modeled ways to instruct using the tools in a classroom setting

	Frequency	Percent
Not at all	5	3.1
Small extent	8	4.9
Moderate extent	49	30.2
Great extent	98	60.5
No opinion	2	1.2
Total	162	100.0

E7_10. Listening to the Master Teacher's explanation of core workshop elements such as the tools, thinking skills, and supporting theory

	Frequency	Percent
Not at all	4	2.4
Small extent	7	4.3
Moderate extent	47	28.7
Great extent	105	64.0
No opinion	1	.6
Total	164	100.0

E7_11. Discussing and collaborating with other Participant Teachers

	Frequency	Percent
Not at all	3	1.8
Small extent	4	2.4
Moderate extent	37	22.6
Great extent	117	71.3
No opinion	3	1.8
Total	164	100.0

E7_12. Reflecting on your own teaching practices

	Frequency	Percent
Definitely not	3	1.9
Probably not	5	3.1
Probably yes	42	26.4
Definitely yes	109	68.6
Total	159	100.0

(E8) Would you recommend this workshop to a friend or a colleague?

	Frequency	Percent
Definitely not	6	3.7
Probably not	10	6.1
Probably yes	46	28.0
Definitely yes	102	62.2
Total	164	100.0

**Appendix D: Frequencies of Follow-up Survey for the Workshop
on Teaching Thinking with Technology – Master Teachers (n= 194)**

1. Which of the following best describes the primary professional role you play in your school district?

	Frequency	Percent
Classroom teacher	87	44.8
Enrichment or resource teacher	7	3.6
Technology coordinator	44	22.7
Media specialist/librarian	17	8.8
Other professional staff	32	16.5
Administrator	4	2.1
Other	3	1.5
Total	194	100.0

2. Have you previously taken the Intel® Teach to the Future Essentials Course (40 hours)?

	Frequency	Percent
Yes	135	69.6
No	59	30.4
Total	194	100.0

3. How important was each of the following to your decision to participate in the Intel® Teach to the Future Workshop on Teaching Thinking with Technology?

a. I wanted to use the online thinking tools in my classroom.

	Frequency	Percent
Not at all Important	15	7.8
Somewhat Important	23	11.9
No Opinion	21	10.9
Important	71	36.8
Very Important	63	32.6
Total	193	100.0

b. I wanted to lead a Workshop on Teaching Thinking with Technology for Participant Teachers

	Frequency	Percent
Not at all Important	16	8.3
Somewhat Important	24	12.5
No Opinion	18	9.4
Important	57	29.7
Very Important	77	40.1
Total	192	100.0

c. I enjoy working with other Intel Teach to the Future Master Teachers.

	Frequency	Percent
Not at all Important	8	4.2
Somewhat Important	17	9.0
No Opinion	33	17.5
Important	68	36.0
Very Important	63	33.3
Total	189	100.0

d. I wanted to learn new ways to teach my students to use higher-order thinking skills.

	Frequency	Percent
Not at all Important	4	2.1
Somewhat Important	6	3.2
No Opinion	8	4.2
Important	51	26.8
Very Important	121	63.7
Total	190	100.0

e. It is part of my job to provide professional development opportunities to others

	Frequency	Percent
Not at all Important	29	15.1
Somewhat Important	12	6.3
No Opinion	27	14.1
Important	44	22.9
Very Important	80	41.7
Total	192	100.0

f. Attending the workshop was one way to fulfill a professional development requirement

	Frequency	Percent
Not at all Important	63	32.6
Somewhat Important	30	15.5
No Opinion	32	16.6
Important	42	21.8
Very Important	26	13.5
Total	193	100.0

g. Someone at my school or district recommended I attend the workshop.

	Frequency	Percent
Not at all Important	45	23.3
Somewhat Important	25	13.0
No Opinion	40	20.7
Important	48	24.9
Very Important	35	18.1
Total	193	100.0

h. I wanted to learn about integrating new technologies into my teaching.

	Frequency	Percent
Not at all Important	11	5.7
Somewhat Important	5	2.6
No Opinion	7	3.6
Important	55	28.4
Very Important	116	59.8
Total	194	100.0

4. During the workshop, how did you feel about the amount of time dedicated to the following activities?

a. To learn how to use the online thinking tools themselves

	Frequency	Percent
Not enough time	26	13.6
Right amount of time	153	80.1
Too much time	12	6.3
Total	191	100.0

b. To have discussions about higher-order thinking skills

	Frequency	Percent
Not enough time	31	16.1
Right amount of time	138	71.5
Too much time	24	12.4
Total	193	100.0

c. To learn about Curriculum-Framing Questions (Essential Questions, Unit Questions, Content Questions)

	Frequency	Percent
Not enough time	23	11.9
Right amount of time	141	73.1
Too much time	24	12.4
No opinion	5	2.6
Total	193	100.0

d. To develop project ideas using the online thinking tools

	Frequency	Percent
Not enough time	72	37.5
Right amount of time	116	60.4
Too much time	4	2.1
Total	192	100.0

e. To develop concrete strategies for integrating higher-order thinking into my teaching

	Frequency	Percent
Not enough time	45	23.3
Right amount of time	141	73.1
Too much time	6	3.1
No opinion	1	.5
Total	193	100.0

f. To discuss with my peers how to enhance students' 21st century skills

	Frequency	Percent
Not enough time	47	24.5
Right amount of time	124	64.6
Too much time	15	7.8
No opinion	6	3.1
Total	192	100.0

5. During the workshop, you developed a unit plan. Which of the online thinking tools did your unit plan include? (Please select only one response.)

	Frequency	Percent
<i>Visual Ranking Tool</i> only	18	9.4
<i>Seeing Reason Tool</i> only	5	2.6
<i>Showing Evidence Tool</i> only	7	3.6
Both <i>Visual Ranking</i> and <i>Seeing Reason</i> tools	31	16.1
Both <i>Visual Ranking</i> and <i>Showing Evidence</i> tools	12	6.3
Both <i>Seeing Reason</i> and <i>Showing Evidence</i> tools	4	2.1
All three of the online thinking tools	115	59.9
Total	192	100.0

6. What was the primary subject area targeted by this unit plan? (Please select only one response.)

	Frequency	Percent
Art/Music	1	.5
Computers/Technology	33	17.0
English/Language Arts	38	19.6
Foreign Language	5	2.6
Mathematics	15	7.7
Science	32	16.5
Social Studies/History	50	25.8
Other (please specify)	20	10.3
Total	194	100.0

7. For what grade level was your unit plan intended? *(Please select all that apply.)*

	Frequency	Percent
Lower Elementary (grades preK-3)	23	11.8
Upper Elementary (grades 4-5)	48	25.8
Middle School/Junior High (grades 6-8)	69	34.2
High School (grades 9-12)	56	28.2
Total	196	100.0

8. What objectives did you seek to address in developing your unit plan? *(Please check all that apply.)*
(n=194)

	Frequency	Percent "Yes"
To provide students the opportunity to visualize their thinking process through using the tools.	143	73.7
To promote discussion in the classroom.	120	61.9
To encourage collaborative work among students.	129	66.5
To engage students in project-based learning activities.	126	64.9
To support the diverse needs of students (e.g. ELL, gifted, special needs).	74	38.1
To connect my curriculum with the higher-order thinking skills the tools are designed to support.	32	16.5
Other	50	25.8

9. Which of the following sections of the Workshop on Teaching Thinking with Technology curriculum manual was most helpful to you when developing this unit plan? *(Please select only one response.)*

	Frequency	Percent
The "Habits of Learning Taxonomy" I developed during the workshops	36	18.7
Those sections that focus on creating Curriculum-Framing Questions	45	23.3
Those sections that focus on developing methods of assessments	9	4.7
The Essential Question ideas and examples found in the Appendix	28	14.5
The online thinking tools project ideas found in the Appendix	75	38.9
Total	193	100.0

11. Since attending the workshop, which of the online thinking tools have you used with your students? (*Please check all that apply.*) (n=194)

	Frequency	Percent "Yes"
<i>Visual Ranking Tool</i>	83	42.8
<i>Seeing Reason Tool</i>	36	18.6
<i>Showing Evidence Tool</i>	37	19.1
I have not used any of the tools	97	47.4

12. Which of the following 21st century learning skills did your students specifically demonstrate when they participated in a lesson using the online thinking tool(s) in your classroom? (*Please check all that apply.*) (n=194)

	Frequency	Percent "Yes"
Information and media literacy skills	60	30.9
Positive attitudes and perceptions about learning	57	29.4
Critical thinking and systems thinking	86	44.3
Problem identification, formulation and solution skills	51	26.3
Acquisition and integration of knowledge skills	46	23.7
Science	32	16.5
Listening to others with understanding and empathy skills	62	32.0
Communication skills	77	39.7
Striving for accuracy and precision skills	24	12.4
Other	2	1.0

13. Which, if any, of the following activities have you done since attending a Workshop on Teaching Thinking with Technology? *If you are not a classroom teacher, please answer as someone who supports others in integrating these tools. (Please check all that apply.)* (n=194)

	Frequency	Percent "Yes"
Integrated one or more of the online thinking tools into an existing lesson or unit plan	91	46.9
Taught students how to use the online thinking tools through an activity that was not related to my curriculum	42	21.6
Used one or more of the online thinking tools in ways that were different from the uses of the tools explain	29	14.9
Used one or more of the online thinking tools in an exercise to introduce a class project or unit	65	33.5
Used one or more of the online thinking tools in the middle of a unit or project or unit in my classroom	57	29.4
Used one or more of the online thinking tools as part of a culminating project in my class classroom	42	21.6
Used one or more of the online thinking tools to help students represent or organize information as a stand-alone activity	58	29.9
Had my students access one or more of the online thinking tools from locations outside of school	19	9.8

14. Please indicate the extent to which you agree or disagree with each of the following statements. *If you are not a classroom teacher, please answer as someone who supports others in integrating these tools.*

a. Students found the online tool(s) easy to use

	Frequency	Percent
Strongly Agree	24	23.8
Agree	67	66.3
No Opinion	7	6.9
Disagree	3	3.0
Total	101	100.0

b. Using the *Seeing Reason Tool* helped students better understand causal relationships.

	Frequency	Percent
Strongly Agree	19	18.8
Agree	41	40.6
No Opinion	41	40.6
Total	101	100.0

c. Using the *Visual Ranking Tool* helped students evaluate and prioritize information.

	Frequency	Percent
Strongly Agree	49	49.0
Agree	37	37.0
No Opinion	14	14.0
Total	100	100.0

d. Using the *Showing Evidence Tool* helped students construct arguments and analyze evidence.

	Frequency	Percent
Strongly Agree	22	21.6
Agree	30	29.4
No Opinion	48	47.1
Disagree	2	2.0
Total	102	100.0

e. Using the tool(s) helped students consider issues from multiple perspectives.

	Frequency	Percent
Strongly Agree	34	33.7
Agree	56	55.4
No Opinion	10	9.9
Disagree	1	1.0
Total	101	100.0

f. Using the tool(s) helped students meet appropriate standards and/or benchmarks in my subject area.

	Frequency	Percent
Strongly Agree	30	29.4
Agree	56	54.9
No Opinion	14	13.7
Disagree	2	2.0
Total	102	100.0

15. The following is about challenges you may have faced when using the online thinking tools in the classroom. Please indicate the extent to which you agree or disagree with each of the following

statements. *If you are not a classroom teacher, please answer as someone who supports other teachers in integrating these tools.*

a. The skills that the tools focused on were difficult to fit into my curriculum

	Frequency	Percent
Strongly Agree	2	2.0
Agree	5	5.0
No Opinion	6	5.9
Disagree	69	68.3
Strongly Disagree	19	18.8
Total	101	100.0

b. It is not too easy to schedule adequate computer/Internet access for students to use the tools

	Frequency	Percent
Strongly Agree	10	10.0
Agree	28	28.0
No Opinion	6	6.0
Disagree	36	36.0
Strongly Disagree	20	20.0
Total	100	100.0

c. My school does not have adequate computer/Internet resources for students to use the tools.

	Frequency	Percent
Strongly Agree	5	5.1
Agree	20	20.4
No Opinion	6	6.1
Disagree	35	35.7
Strongly Disagree	32	32.7
Total	98	100.0

d. The tools would have to be more flexible to be useful.

	Frequency	Percent
Strongly Agree	1	1.0
Agree	6	5.9
No Opinion	16	15.8
Disagree	61	60.4
Strongly Disagree	17	16.8
Total	101	100.0

e. My students do not have strong enough computer/Internet skills to use the tools effectively.

	Frequency	Percent
Strongly Agree	1	1.0
Agree	11	10.9
No Opinion	6	5.9
Disagree	61	60.4
Strongly Disagree	22	21.8
Total	101	100.0

f. I would need additional training on the tools to use them effectively with students.

	Frequency	Percent
Strongly Agree	2	2.0
Agree	6	6.0
No Opinion	5	5.0
Disagree	53	53.0
Strongly Disagree	34	34.0
Total	100	100.0

g. I did not have adequate technical support to use the tools.

	Frequency	Percent
Agree	5	5.0
No Opinion	2	2.0
Disagree	53	53.0
Strongly Disagree	40	40.0
Total	100	100.0

h. I did not have adequate administrative support to use the tools

	Frequency	Percent
Strongly Agree	3	2.9
Agree	6	5.9
No Opinion	6	5.9
Disagree	51	50.0
Strongly Disagree	36	35.3
Total	102	100.0

i. The tools do not align with standards and benchmarks in my subject area.

	Frequency	Percent
Agree	3	3.0
No Opinion	4	4.0
Disagree	45	44.6
Strongly Disagree	49	48.5
Total	101	100.0

16. The following statements describe possible reasons why you did not use the online thinking tools in your teaching. Please indicate the degree to which you agree or disagree with each statement. *If you are not a classroom teacher, please answer as someone who supports others in integrating these tools.*

a. The skills that the tools focused on were difficult to fit into my curriculum

	Frequency	Percent
Strongly Agree	5	5.6
Agree	16	17.8
No Opinion	12	13.3
Disagree	41	45.6
Strongly Disagree	16	17.8
Total	90	100.0

b. It is not easy to schedule adequate computer/Internet access for students to use the tools

	Frequency	Percent
Strongly Agree	17	18.9
Agree	23	25.6
No Opinion	12	13.3
Disagree	25	27.8
Strongly Disagree	13	14.4
Total	90	100.0

c. My school does not have adequate computer/Internet resources for students to use the tools.

	Frequency	Percent
Strongly Agree	12	13.3
Agree	12	13.3
No Opinion	9	10.0
Disagree	37	41.1
Strongly Disagree	20	22.2
Total	90	100.0

d. I did not have enough time to re-work or create new lesson plans to accommodate using the tools.

	Frequency	Percent
Strongly Agree	6	6.7
Agree	12	13.5
No Opinion	20	22.5
Disagree	37	41.6
Strongly Disagree	14	15.7
Total	89	100.0

e. My students do not have strong enough computer/Internet skills to use the tools effectively.

	Frequency	Percent
Strongly Agree	7	7.8
Agree	11	12.2
No Opinion	10	11.1
Disagree	45	50.0
Strongly Disagree	17	18.9
Total	90	100.0

f. I would need additional training on the tools to use them effectively with students.

	Frequency	Percent
Strongly Agree	5	5.6
Agree	14	15.6
No Opinion	13	14.4
Disagree	34	37.8
Strongly Disagree	24	26.7
Total	90	100.0

g. I did not have adequate technical support to use the tools.

	Frequency	Percent
Strongly Agree	6	6.7
Agree	4	4.4
No Opinion	11	12.2
Disagree	45	50.0
Strongly Disagree	24	26.7
Total	90	100.0

h. The tools do not align with standards and benchmarks in my subject area.

	Frequency	Percent
Strongly Agree	7	7.8
Agree	8	8.9
No Opinion	13	14.4
Disagree	34	37.8
Strongly Disagree	28	31.1
Total	90	100.0

17. Which Intel Teach to the Future Workshop on Teaching Thinking with Technology agenda type have you conducted - or plan to conduct - for Participant Teachers?

a. Workshop featuring *Visual Ranking Tool*

	Frequency	Percent
I have conducted	32	21.2
I plan to conduct within the school year	49	32.5
I plan to conduct but I'm not sure when	45	29.8
I don't plan to conduct	25	16.6
Total	151	100.0

b. Workshop featuring *Visual Ranking* and *Seeing Reason* tools

	Frequency	Percent
I have conducted	26	17.3
I plan to conduct within the school year	41	27.3
I plan to conduct but I'm not sure when	51	34.0
I don't plan to conduct	32	21.3
Total	150	100.0

17c. Workshop featuring *Visual Ranking* and *Showing Evidence* tools

	Frequency	Percent
I have conducted	12	8.7
I plan to conduct within the school year	41	29.7
I plan to conduct but I'm not sure when	44	31.9
I don't plan to conduct	41	29.7
Total	138	100.0

17d. Workshop featuring *Visual Ranking*, *Seeing Reason* and *Showing Evidence* tools

	Frequency	Percent
I have conducted	23	13.0
I plan to conduct within the school year	68	38.4
I plan to conduct but I'm not sure when	52	29.4
I don't plan to conduct	34	19.2
Total	177	100.0

18. If you have NOT yet conducted a workshop in your school or district, please select the response that best describes why. If you have taught a workshop, please select "I have conducted a workshop."

	Frequency	Percent
I did not want to schedule a workshop for teachers	3	1.6
I could not find time to schedule a workshop	38	20.7
I scheduled a workshop, but I did not have Enough teachers	9	4.9
I scheduled a workshop, but could not due to influences beyond my control	9	4.9
There was not enough interest from teachers in my school or	17	9.2
I did not have support from my school or district to conduct	6	3.3
I have conducted a workshop.	36	19.6
Other (please specify)	66	35.9
Total	184	100.0

19. Please indicate the extent to which you agree or disagree with each of the following statements.

a. I felt prepared to conduct a workshop for Participant Teachers on one or more online thinking tools after taking the workshop myself

	Frequency	Percent
Strongly Agree	65	33.7
Agree	103	53.4
No Opinion	5	2.6
Disagree	15	7.8
Strongly Disagree	5	2.6
Total	193	100.0

b. The workshop instruction and materials provided me with the background to assist Participant Teachers in dev their own unit plans to use in their classrooms

	Frequency	Percent
Strongly Agree	62	32.1
Agree	109	56.5
No Opinion	11	5.7
Disagree	10	5.2
Strongly Disagree	1	.5
Total	193	100.0

c. After taking the Workshop on Teaching Thinking with Technology, I felt prepared to guide Participant Teacher in discussions and project planning activities related to causal reasoning

	Frequency	Percent
Strongly Agree	49	25.4
Agree	120	62.2
No Opinion	9	4.7
Disagree	11	5.7
Strongly Disagree	4	2.1
Total	193	100.0

d. After taking the Workshop on Teaching Thinking with Technology I felt prepared to guide Participant Teachers on discussions and project planning activities related to analyzing and prioritizing information

	Frequency	Percent
Strongly Agree	54	28.1
Agree	115	59.9
No Opinion	8	4.2
Disagree	12	6.3
Strongly Disagree	3	1.6
Total	192	100.0

e. After taking the Workshop on Teaching Thinking with Technology I felt prepared to guide Participant Teachers on discussions and project planning activities related to building claims and evidence to support or refute arguments

	Frequency	Percent
Strongly Agree	47	24.4
Agree	105	54.4
No Opinion	16	8.3
Disagree	22	11.4
Strongly Disagree	3	1.6
Total	193	100.0

f. I received adequate administrative support to hold a workshop on one or more online thinking tools for Participant Teachers in my school or district

	Frequency	Percent
Strongly Agree	51	26.6
Agree	85	44.3
No Opinion	37	19.3
Disagree	14	7.3
Strongly Disagree	5	2.6
Total	192	100.0

g. I was able to introduce the online thinking tools to teachers as part of a broader professional development event

	Frequency	Percent
Strongly Agree	16	8.4
Agree	40	21.1
No Opinion	75	39.5
Disagree	46	24.2
Strongly Disagree	13	6.8
Total	190	100.0