Thinking Organizers: Tools for Candidates to Organize and Record Their Thinking During Both Formative and Summative edTPA Experiences

Purpose: As teacher candidates undergo the edTPA assessment process, they can experience difficulty keeping track of the reasoning and thinking behind all of the decisions that they made during the process. These thinking organizers provide an avenue through which candidates can record their thoughts, reasoning, and evidence of practice throughout the edTPA process and then have easy access to that information when they are ready to write their commentaries.

These thinking organizers were created by Elisa Palmer (edTPA coordinator, Illinois State University) to assist candidates with the organization of their thoughts prior to writing their official responses to the edTPA commentary prompts. These supports provide a table for each commentary question that the candidate fills in with his or her thoughts. The teacher candidate can then use that table to write his or her official response to that question.

Use of the thinking organizers is not limited to work on the summative edTPA portfolio. Instructors can use the tables in formative experiences leading up to the summative edTPA portfolio creation. For example, a course may have an assignment or clinical experience that requires reflections upon professional practice. The course instructor can utilize some of the thinking organizers and adapt them to the particular questions asked in that assignment or clinical reflection.

Overall, the thinking organizers are helpful in aiding teacher candidates in their documentation of their thinking and reasoning throughout the completion of their edTPA portfolio as well as providing a tool for creating and organizing responses in formative course work.

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Thinking organizers are available for the following edTPA handbooks:

- Agriculture
- Business Education
- Early Childhood
- Elementary Education
- Elementary Literacy
- Elementary Mathematics
- English as an Additional Language
- Family and Consumer Sciences
- Health Education
- K-12 Physical Education
- K-12 Performing Arts
- Middle Childhood English Language Arts
- Middle Childhood Mathematics
- Middle Childhood Science
- Middle Childhood Social Studies
- Secondary English-Language Arts
- Secondary History/Social Studies
- Secondary Mathematics
- Secondary Science
- Special Education
- Technology and Engineering Education
- Visual Arts
- World Languages

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Planning Commentary Thinking Organizers and Helpful Hints (Secondary Mathematics Version)

Please note: The purpose of this thinking organizer is to help you gather and organize your thoughts in preparation for writing your planning commentary. You will still need to write your answers in paragraph form in the official edTPA planning commentary template.

1. Central Focus

a. Describe the central focus and purpose for the content you will teach in the learning segment.

Sentence starters:

The central focus of this learning segment is …

I am teaching this content because…

b. Given the central focus, describe how the standards and learning objectives within your learning segment address conceptual understanding, procedural fluency, and mathematical reasoning and/or problem solving skills

Organize your response:

Identify the Standard or Learning Objective	Identify if it is connected to conceptual understanding, procedural fluency, mathematical reasoning or problem solving skills.	Explain how these are connected.

c. Explain how your plans build on each other to help students make connections between facts, concepts, and procedures, and to develop their mathematical reasoning and/or problem solving skills to build understanding of mathematics.

Note: Discuss how you will get the students from facts, concepts and procedures to developing mathematical reasoning and problem solving skills.

Organize your response:

Identify the fact, concept, procedure, mathematical reasoning or problem solving skill being addressed	How is this addressed in Lesson 1?	Explain how Lesson 2 builds on Lesson 1	Explain how Lesson 3 builds on Lesson 2

2. Knowledge of Students to Inform Teaching

For each of the prompts below (2a–b), describe what you know about your students with respect to the central focus of the learning segment.

Consider the variety of learners in your class who may require different strategies/support (e.g., students with IEPs, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted studen

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a. Prior academic learning and prerequisite skills related to the central focus—Cite evidence of what students know, what they can do, and what they are still learning to do.

Organize your response:

Students	Related content already learned	Related skills students already have	What the students are learning to do related to the learning segment
Class as a whole			
Students with IEPs			
Students with 504 plans			
Other groups of learners			

b. Personal/cultural/community assets related to the central focus—What do you know about your students' everyday experiences, cultural and language backgrounds and practices, and interests?

Organize your response:

Students	Students' everyday experiences related to the learning segment	Students' cultural and language backgrounds related to the learning segment	Students' cultural and language practices related to the learning segment	Students' interests related to the learning segment
Class as a whole				
Students with IEPs				
Students with 504 plans				
Other groups of learners				

Notes: Stay positive – discuss your students' assets
Keep the learning segment in mind – only discuss student assets related to the learning segment

c. Mathematical dispositions—What do you know about the extent to which your students

- **perceive mathematics as "sensible, useful, and worthwhile"[1]**
- **persist in applying mathematics to solve problems**
- **believe in their ability to learn mathematics**

Organize your answer:

Mathematical Disposition	Describe your students in light of this disposition
Perception of mathematics as "sensible, useful, and worthwhile"	
Persistence in applying mathematics to solve problems	
Believe in their ability to learn mathematics	

3. Supporting Students' Mathematics Learning

a. Explain how your understanding of your students' prior learning and personal/cultural/community assets (from prompts 2a–b above) guided your choice or adaptation of learning tasks and materials.

Organize your answer:

Chosen learning task or material (or adaptation of either)	Associated student learning or asset	Why did you make this choice?	What research supports this choice?	How does the research support this choice?

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b. Describe and justify why your instructional strategies and planned supports are appropriate for the whole class, individuals, and groups of students with specific learning needs.

Consider students with IEPs, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students needing greater support or challenge.

Organize your answer:

Instructional/planned support	How is this tied to the learning objective?	Why is this appropriate for the whole class or what particular group of students is this designed for?

c. Describe common mathematical preconceptions, errors, or misunderstandings within your central focus and how you will address them.

Organize your answer:

Possible mathematical preconception, error, or misunderstanding	How will you identify if students have this preconception?	How will you address it during instruction?

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4. Supporting Mathematics Development Through Language

a. Language Function. Identify one language function essential for students to learn the mathematics within your central focus. Listed below are some sample language functions. You may choose one of these or another more appropriate for your learning segment.

Compare/contrast	**Conjecture**	**Describe**	**Explain**	**Prove**

Sentence starter: "The language function essential for student learning within my central focus is _____."

b. Identify a key learning task from your plans that provides students with opportunities to practice using the language function. Identify the lesson in which the learning task occurs. (Give the lesson/day and number.)

Sentence starter: "The key learning task that gives student the opportunity to practice using the language function is _____. This task occurs on day _____ in lesson _____."

c. Additional Language Demands. Given the language function and learning task identified above, describe the following associated language demands (written or oral) students need to understand and/or use:

- Vocabulary and/or symbols

- Plus at least one of the following:

- Syntax

- Discourse

Consider the range of students' understandings of the language function and other language demands—what do students already know, what are they struggling with, and/or what is new to them

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Organizing your response:

Language demand	What do students already know?	What are they struggling with?	What is new to them?
Vocabulary			
Symbols			
Syntax			
Discourse			

d. Language Supports. Refer to your lesson plans and instructional materials as needed in your response to the prompts.

- **Describe the instructional supports (during and/or prior to the learning task) that help students understand and successfully use the language function and additional language demands identified in prompts 4a–c.**

Organizing your response:

Language demand	Language support planned	How does this language support help students use the language function?
Vocabulary and/or symbols		
Syntax and/or discourse		

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5. Monitoring Student Learning

In response to the prompts below, refer to the assessments you will submit as part of the materials for Task 1.

a. Describe how your planned formal and informal assessments will provide direct evidence of students' conceptual understanding, procedural fluency, and mathematical reasoning and/or problem solving skills throughout the learning segment.

Organize your response:

Area of Targeted Student Learning	Description of assessments designed to monitor the targeted student learning.	Explain how this assessment will provide evidence of student mastery of this area of targeted student learning?

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b. Explain how the design or adaptation of your planned assessments allows students with specific needs to demonstrate their learning.

Consider all students, including students with IEPs, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students.

Organize your response:

Description of assessment or assessment adaptations	The students(s) for whom the assessment was designed or adapted	How does this assessment allow this student(s) to demonstrate his/her learning?

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Instruction Commentary Thinking Organizers and Helpful Hints (Secondary Mathematics Version)

Please note: The purpose of this thinking organizer is to help you gather and organize your thoughts in preparation for writing your instruction commentary. You will still need to write your answers in paragraph form in the official edTPA instruction commentary template.

1. Which lesson or lessons are shown in the video clips? Identify the lesson(s) by lesson plan number.

Sentence starters:

"The lesson shown in the clips is Lesson #_____"
OR
"The lesson shown in Clip 1 is Lesson _____ and the lesson shown in Clip 2 is Lesson _____."

2. Promoting a Positive Learning Environment

a. How did you demonstrate mutual respect for, rapport with, and responsiveness to students with varied needs and backgrounds, and challenge students to engage in learning?

Organize your answer:

Characteristic of Positive Learning Environment	Video segment(s) with time stamps that demonstrates this characteristic	How does this clip demonstrate this characteristic?
Mutual respect for students		
Rapport with students		
Responsiveness to students' needs		
Challenging students to engage in learning		

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3. Engaging Students in Learning

a. Explain how your instruction engaged students in developing

- **conceptual understanding**
- **procedural fluency**
- **mathematical reasoning and/or problem solving skills**

Organize your answer:

Student action	Video clip with time stamps that shows this action	How is this action seen in the video?
Students are engaged in developing conceptual understanding		
Students are engaged in developing procedural fluency		
Students are engaged in developing mathematical reasoning and/or problem solving skills		

b. Describe how your instruction linked students' prior learning and personal, cultural, and community assets with new learning.

Organize your response:

Instructional connections between student characteristics and new learning	Video clip with time stamps that shows this connection	How is this connection seen in the video?
Students' prior learning		
Students' personal assets		
Students' cultural assets		
Students' community assets		

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4. Deepening Student Learning during Instruction

a. Explain how you elicited and built on student responses to promote thinking and develop conceptual understanding, procedural fluency, and mathematical reasoning and/or problem solving skills.

Organize your response

Evidence of eliciting responses from students that promote student development of…	Video clip (including time stamps)	Describe how you elicited responses and deepened student thinking in this clip
Conceptual understanding		
Procedure fluency		
Mathematical reasoning		
Problem solving skills		

b. Explain how you used representations to support students' understanding and use of mathematical concepts and procedures.

Organize your response

Evidence using of representation to…	Video clip (including time stamps)	Describe how you elicited responses and deepened student thinking in this clip
Support students' understanding/use of math concepts.		
Support students' understanding/use of math procedures.		

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5. Analyzing Teaching

Consider the variety of learners in your class who may require different strategies/support (such as students with IEPs, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students).

a. What changes would you make to your instruction—for the whole class and/or for students who need greater support or challenge—to better support student learning of the central focus (e.g., missed opportunities)?

Organize your response:

Learning need seen in video	Video segment (Including video # and time stamps)	Proposed change in teaching practice

b. Why do you think these changes would improve student learning? Support your explanation with evidence of student learning and principles from theory and/or research.

Organize your response:

Proposed change in teaching practice	How would this change assist students with achieving the learning objective?	What research is this change based on?	How does this research support your proposed change?

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Assessment Commentary Thinking Organizers and Helpful Hints (Secondary Mathematics Version)

Please note: The purpose of this thinking organizer is to help you gather and organize your thoughts in preparation for writing your assessment commentary. You will still need to write your answers in paragraph form in the official edTPA assessment commentary template. The exception to this is your response to 1b.

1. **Analyzing Student Learning**

a. **Identify the specific learning objectives measured by the assessment you chose for analysis.**

Note: Choose an assessment that is formative in nature and only addresses 1-2 learning objectives. This will allow you to analyze student learning at a deeper level.

Organize your answer:

Objective	Explain how is how this is measured in the assessment

b. **Provide a graphic (table or chart) or narrative that summarizes student learning for your whole class. Be sure to summarize student learning for all evaluation criteria submitted in Assessment Task 3, Part D.**

Create a table that shows the student learning/performance by question or activity aligned to objective.

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c. Use evidence found in the 3 student work samples and the whole class summary to analyze the patterns of learning for the whole class and differences for groups or individual learners relative to

- **conceptual understanding**
- **procedural fluency, AND**
- **mathematical reasoning and/or problem solving skills**

Organize your answer:

Pattern of student learning observed (what are they doing well or what are they struggling with?)	Is the pattern relative to conceptual understanding, procedural fluency, mathematical reasoning, or problem solving skills?	Students showing this pattern	Evidence from whole class summary	Evidence from student work samples

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2. Feedback to Guide Further Learning

b. Explain how feedback provided to the 3 focus students addresses their individual strengths and needs relative to the standards/objectives measured.

Hints: Be sure to provide feedback on to students on both their strengths and their errors.
Be sure to provide equal feedback to all student work samples.

Focus student	Description of feedback provided (identify question, page, etc.)	Associated learning objective	Does the feedback focus on the students' strengths or errors?
1			
2			
3			

c. How will you support students to understand and use the feedback to further their learning related to the learning objectives, either within the learning segment or at a later time?

Focus student	How student will understand and use the feedback for further learning to their current work?	How you will support the student in understanding and using the feedback?
1		
2		
3		

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3. Evidence of Language Understanding and Use

Explain and provide evidence for the extent to which your students were able to use or struggled to use language (selected function, vocabulary and/or symbols, and additional identified language demands from Task 1) to develop content understandings.

Organize your response:

Language demand	Evidence of use (be specific)	How does this evidence show the students using the language demand to develop their content understanding?
Selected language function (write it in)		
Vocabulary		
Symbols		
Syntax		
Discourse		

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4. Using Assessment to Inform Instruction

a. Based on your analysis of student learning presented in prompts 1c–d, describe next steps for instruction

- **for the whole class**
- **for the 3 focus students and other individuals/groups with specific needs**

- **Consider the variety of learners in your class who may require different strategies/support (e.g., students with IEPs, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students needing greater support or challenge).**

Students	Next steps for instruction
Whole class	
Focus student 1	
Focus student 2	
Focus student 3	
Individuals with specific needs	
Groups with specific needs	

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b. Explain how these next steps follow from your analysis of student learning. Support your explanation with principles from research and/or theory.

Next step for instruction	What learning need is this in response to?	Why did you choose this as your next step for instruction?	What research supports this instructional choice?	How does this research support this instructional choice?