

Evaluation of Evidence Guide

Early Adolescence/Mathematics

Portfolio Entry 1

1. **Aspects of teaching. As you read the response, note evidence pertaining to EACH of the aspects of teaching listed below. Evidence may come from one or more data sources for any one aspect.**
 - a) **KNOWLEDGE OF STUDENTS (KOS):** Knowledge of each student (as individuals and as learners of mathematics) and teaching context.
 - b) **GOALS/CONNECTIONS (G/C):** Goals, including the featured mathematical concept; connection between the goals, the concept, student needs, and the instructional activities.
 - c) **INSTRUCTION (INS):** The instructional sequence, including the featured instructional activities, is organized to develop an understanding of a substantive mathematical idea as the sequence unfolds. Is the rationale for the activities appropriate for the instructional goals and the students? What are students asked to do, and are the activities used to provide insight into individual students' knowledge?
 - d) **ANALYSIS (ANA):** Teacher's analysis and assessment of the students' responses to the instructional activities with respect to the learning goals, including specific aspects of the student's work that demonstrate mathematical understandings and misunderstandings and mathematical thinking and reasoning. Is the analysis accurate, complete, specific, and insightful?
 - e) **ASSESSMENT (ASMT):** Evidence that the teacher uses various assessment strategies in order to improve his or her work with students.
 - f) **FEEDBACK/NEXT STEPS (FB):** Feedback to students in light of goals and in formulating the next steps for math instruction.
 - g) **CONTENT KNOWLEDGE (CK):** Teacher's mathematical content and pedagogical knowledge.
 - h) **REFLECTION (R):** Next steps, alternative approaches, and an ability to analyze and modify the teacher's own practice.

2. **Does instruction promote this student’s growth in mathematical understanding? (ANSWER FOR EACH STUDENT.) For each student, think about the quality of, and the links between, the different parts of the evidence—are the parts and links logical, accurate, and complete? Here are the links to think about:**
- information about the students $\leftarrow \rightarrow$ the goals $\leftarrow \rightarrow$ the instruction
 - the instruction $\leftarrow \rightarrow$ the teacher’s analysis of the student work $\leftarrow \rightarrow$ the reflection
 - the teacher’s analysis $\leftarrow \rightarrow$ the student work (i.e., quality of “fit”: do the two sources support and enhance each other or do they conflict and undermine each other?)
3. **Does the instructional sequence deepen students’ understanding of an important mathematical concept? Does the teacher integrate assessment into instruction to promote students’ understanding of mathematics, inform instruction, and improve teaching? Consider:**
- whether the featured concept is substantive and important in mathematics.
 - the strength of the connections among the instructional activities and the featured mathematical concept.
 - whether the instructional activities deepen students’ mathematical understandings and elicit mathematical thinking and reasoning.
 - whether the activities further the learning goals.
 - if the activities differentiate among learners, provide insight into individual student’s knowledge, and allow students to demonstrate achievement of goals.
4. **Think about the performance as a whole. Overall, what is the nature of the evidence that the teacher is able to design and implement a sequence of learning experiences that builds students’ conceptual understanding of a substantive idea in mathematics and enhances their ability to think and reason mathematically? Think about:**
- the instructional activities and their descriptions, including the rationale for using them.
 - the analysis of the student work and the student work itself.
 - your judgment of the effectiveness of the instruction (including feedback) for each of the two students.
 - the contextual and reflective information provided in the commentary.

Evaluation of Evidence Guide

Early Adolescence/Mathematics

Portfolio Entry 2

1. **Aspects of teaching. As you review the response, note evidence pertaining to EACH of the aspects of teaching listed below. Evidence may come from one or more data sources for any one aspect.**
 - a) **KNOWLEDGE OF STUDENTS (KOS):** Knowledge of students as learners and teaching context.
 - b) **GOALS/CONNECTIONS (G/C):** Goals and the connection between these goals, student needs, and instruction.
 - c) **CONTENT KNOWLEDGE (CK):** Teacher's mathematical content and pedagogical knowledge.
 - d) **INSTRUCTION (INS):** The instructional sequence, including the featured lesson; the instructional techniques used by the teacher to facilitate the discussion and deepen students' mathematical understanding and mathematical power.
 - e) **LEARNING ENVIRONMENT (LE):** Is the learning environment equitable, accessible, and fair? Is it productive and conducive to mathematical reasoning and discourse?
 - f) **ENGAGEMENT (ENG):** Engagement in discourse on the video recording, including verbal and nonverbal signs of interest in, and connection to, what is being taught.
 - g) **ASSESSMENT (ASMT):** Evidence that the teacher practices ongoing, informal assessment while teaching and that he or she adjusts instruction as warranted.
 - h) **ANALYSIS (ANA):** Description and analysis of the video recorded lesson—is it accurate and insightful?
 - i) **FEEDBACK (FB):** Feedback to students—is it frequent, supportive, and instructive?
 - j) **REFLECTION (R):** Next steps, alternative approaches, and the ability to analyze and modify the teacher's own practice.

2. **Does instruction combine with other aspects of the entry to facilitate students' growth in mathematical understanding? As you answer this question, think about the quality of and the links between the different parts of the evidence—are the parts and links logical, accurate, and complete? Here are the links to think about:**
- information about the students $\leftarrow \rightarrow$ the goals $\leftarrow \rightarrow$ the instruction
 - the instruction $\leftarrow \rightarrow$ the teacher's analysis $\leftarrow \rightarrow$ the reflection
 - the written commentary $\leftarrow \rightarrow$ what was seen on the video recording (i.e., quality of “fit”: do the two sources support and enhance each other or do they conflict and undermine each other?)
3. **Think about the performance as a whole. Overall, what is the nature of the evidence that the teacher is able to engage students in mathematical discourse about an important topic in mathematics and enhance students' mathematical understanding and their ability to think and reason mathematically? Think about:**
- the evidence in the written commentary
 - the evidence in the video recording
 - your judgment of the effectiveness of the instruction and the level of engagement in the discussion
 - the links between the written commentary and the video recording

Evaluation of Evidence Guide

Early Adolescence/Mathematics

Portfolio Entry 3

1. **Aspects of teaching. As you review the response, note evidence pertaining to EACH of the aspects of teaching listed below. Evidence may come from one or more data sources for any one aspect.**
 - a) **KNOWLEDGE OF STUDENTS (KOS):** Knowledge of students and teaching context.
 - b) **GOALS/CONNECTIONS (G/C):** Connection between goals, student needs, and instruction.
 - c) **INSTRUCTION (INS):** The instructional sequence, including the featured lesson; the instructional techniques used by the teacher to facilitate the collaboration and deepen students' mathematical understanding.
 - d) **CONTENT KNOWLEDGE (CK):** Teacher's content knowledge and knowledge of mathematics pedagogy.
 - e) **LEARNING ENVIRONMENT (LE):** Is the learning environment equitable, accessible, and fair? Is it productive and conducive to mathematical reasoning and discourse (including questioning and probing)?
 - f) **ENGAGEMENT (ENG):** Engagement in collaborative small groups on the video recording. (Are students engaged in mathematical discourse and taking responsibility for their own learning?)
 - g) **ASSESSMENT (ASMT):** Evidence that the teacher practices ongoing, informal assessment while teaching and adjusts instruction as warranted.
 - h) **TECHNOLOGY/MANIPULATIVES (T/M):** The significance of teacher's use of technology/manipulatives in promoting students' mathematical understanding.
 - i) **ANALYSIS (ANA):** Analysis of the video recording—is it accurate and insightful?
 - j) **REFLECTION (R):** Next steps, alternative approaches, and the ability to analyze and modify the teacher's own practice.

2. **Does instruction come together to facilitate students' growth in mathematical understanding? As you answer this question, think about the quality of, and the links between, the different parts of the evidence—are the parts and links logical, accurate, and complete? Here are the links to think about:**

- information about the students $\leftarrow \rightarrow$ goals $\leftarrow \rightarrow$ the instruction $\leftarrow \rightarrow$ the sequence of instruction
- the instruction (including use of T/M) $\leftarrow \rightarrow$ the teacher's analysis $\leftarrow \rightarrow$ the reflection
- the written commentary $\leftarrow \rightarrow$ what was seen on the video recording (i.e., quality of "fit": do the two sources support and enhance each other or do they conflict and undermine each other?)

3. **Think about the performance as a whole. Overall, what is the nature of the evidence that the teacher is able to engage students in small group collaborative learning about mathematics and enhance students' mathematics understanding and their abilities to think and reason mathematically through the use of manipulative materials or technology? Think about this in terms of:**

- the instruction (including questioning and probing to promote collaboration and discourse)
- the sequence of instruction
- the written commentary, especially the analysis of the lesson featured on the video recording
- the evidence from the video recording itself
- the links between the different aspects of the performance

Evaluation of Evidence Guide

Early Adolescence/Mathematics

Portfolio Entry 4

1. Accomplishments:

- Briefly describe each accomplishment and note the documentation provided by candidates.
- Note the aspect(s) addressed in the evidence for each accomplishment as described below:
 - a) **TEACHER AS PARTNER WITH FAMILIES AND COMMUNITY (P-F/C):** Evidence that the teacher treats parents and other interested adults as valued partners in the child's development and education. Also, evidence that school–community connections facilitate ongoing, mutually beneficial interactions between the students and the wider community and enhance teaching and learning. Evidence that the teacher fosters two-way dialogue with parents and other interested adults.
 - b) **TEACHER AS LEARNER (TL):** Evidence that the teacher has engaged in ongoing professional development whereby he or she has strengthened his or her knowledge, skills, and abilities relevant to his or her teaching context. Does the teacher seek information on current theories and research—and their applications—through familiarity with professional literature, participate in and support professional organizations, or take advanced course work relevant to his or her teaching and learning context?
 - c) **TEACHER AS LEADER/COLLABORATOR (L/C):** Evidence that the teacher has worked collaboratively with colleagues to improve teaching and learning (within the school or in the wider professional community). Also, evidence that the teacher has shared his or her expertise in a leadership role with other educators so that teaching and learning can be improved.
- Evaluate each accomplishment and its impact on student learning.

2. Reflective Summary: Does the teacher explain what was most effective in impacting student learning and why it was effective? Does the teacher plan for impacting student learning in the future? Describe and evaluate the teacher's summary.

3. **Look at the descriptions and the documentation together with the Reflective Summary. What is the nature of the “fit” between them? Consider the following:**
 - Descriptions ← → supporting documentation ← → Reflective Summary (Each and every accomplishment listed by the teacher need not be verified by supporting documentation, and the documentation may not necessarily address every detail of the teacher’s description.)
 - Supporting documentation ← → development as a learner; leading/ collaborating with the professional community; and outreach to families and community ← → Reflective Summary

4. **Professional development, work with colleagues, and appropriateness and extent of outreach to families and the community. Consider the following evidence:**
 - Professional development activities and work with colleagues is ongoing, showing the application of improved content knowledge and/or pedagogical approaches that impact student learning.
 - Strategies used by the teacher to reach out to families and the community are appropriate for his or her students and extensive enough to engage families and the community in two-way communication for the purpose of impacting student learning.
 - Communications with families and community address substantive teaching and learning issues and student progress. (As opposed to communications that are strictly procedural, such as organizing field trips, or focused on behavior or discipline issues.)

5. **Think about the performance as a whole. Overall, what is the nature of the evidence that the teacher is able to impact student learning through work with colleagues, professionals, families, and the community, and as a learner? Think about this in terms of the following areas:**
 - Teacher as Partner with Families and Communities
 - Teacher as Learner
 - Teacher as Leader/Collaborator