

Appendix D:

PAM Scoring Rubric from March 2003

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Category	Indicator/ Competency	Target Performance	Fully Met-3	Partially Met-2	Not Met-1	No Response-0
Content Knowledge PAM: Part 1	Problem solving mathematical language and skills	The teacher candidate displays strong content knowledge demonstrated by: <ul style="list-style-type: none"> • Correctly solving the problem. • Providing a complete explanation. • Using appropriate mathematical representations (e.g., symbolism, diagrams, terminology). • Using appropriate problem-solving strategy and skill(s) to approach the problem/task. 	Solution is correct and all aspects of exemplary performance are evident	Solution is correct, but some aspects of the exemplary performance are weak	Solution is incorrect or most aspects are weak or missing	No response or no discernible connection to the specified task
PAM: Part 2	Content concepts and skills	The teacher candidate demonstrates knowledge of national and state standards in content by: <ul style="list-style-type: none"> • Correctly selecting one NCTM Standard which this problem exemplifies. • Accurately identifying the most important content knowledge concepts and skills needed in order to solve the problem/complete the task. • Providing effective rationales for the NCTM Standard, the content area concept(s) and skill(s) required for the task. 	The standard, concepts and skills are appropriately chosen and supported; concepts and skills are related to the chosen standard	The standard, concepts and skills are appropriately chosen, but support is weak or standard, concept, and skills are not related	The standard, concepts, and/or skills are not appropriate to the task	No response or no discernible connection to the specified task
Content	Planning	The teacher candidate demonstrates effective	The teaching	All aspects are	Most aspects are	No response or no

<p>Pedagogy</p> <p>PAM: Part 3</p>	<p>Instructional strategy</p>	<p>ability to communicate mathematical content and procedures (instructional strategy) to teach the student problem or task provided by:</p> <ul style="list-style-type: none"> Engaging students in appropriate mathematical communication using dialogue/discourse about “how to approach the task and how to know what you are looking for” and goes beyond what to do to complete the problem. Using appropriate and effective representations to support student learning. Applying/enacting appropriate problem-solving strategy related to the students’ problem/task. Developing effective essential questions to evaluate student learning (communication). Modeling reasoning and proof in the solution of the problem. 	<p>incorporates all aspects of exemplary performance</p>	<p>incorporated but some aspects are weak</p>	<p>weak or missing</p>	<p>discernible connection to the specified task</p>
<p>Content knowledge</p>	<p>The teacher candidate demonstrates effective ability to use content knowledge in facilitation of the strategy by:</p> <ul style="list-style-type: none"> Making connections from the concrete to abstract through examples and representations. Connecting content and skill(s) to students’ prior learning based on pre-requisite skills. 	<p>The teaching relates the pre-specified content and skills</p>	<p>Some difficulties in relating the pre-specified content and skills</p>	<p>Some difficulties relating the pre-specified content and skills</p>	<p>Significant difficulties relating the pre-specified content and skills</p>	<p>No response or no discernible connection to the specified task</p>
<p>Assessment</p> <p>PAM: Part 4</p>	<p>Analysis of student work</p>	<p>The teacher candidate effectively analyzes student work by:</p> <ul style="list-style-type: none"> Accurately identifying strengths and weaknesses in student responses. 	<p>Analysis of both student responses incorporates all aspects of exemplary</p>	<p>Some difficulties in analyzing student responses</p>	<p>Significant difficulties in analyzing student responses</p>	<p>No response or no discernible connection to the specified task</p>

		<ul style="list-style-type: none"> • Providing a complete analysis of each student's response. • 	performance			No response or no discernible connection to the specified task
	uture instructional strategy	<p>The teacher candidate effectively identifies an instructional strategy based on the student's needs by:</p> <ul style="list-style-type: none"> • Providing a complete description of most the important remediation strategy. • Focusing on the student's needs based on an analysis of the student's response. • Using appropriate content and skills. • Providing an effective rationale. • 	A complete description of an appropriate remediation strategy is provided	Some difficulties in identifying and describing an appropriate remediation strategy	Significant difficulties in identifying and describing an appropriate remediation strategy	No response or no discernible connection to the specified task
	eedback	<p>The teacher candidate effectively provides student feedback by:</p> <ul style="list-style-type: none"> • Demonstrating mathematical accuracy. • Providing specific explanations for feedback, including examples from the student's work. • Making connections to the content and skills demonstrated in the student's work. 	Feedback incorporates all aspects of exemplary performance	Some difficulties in giving feedback	Significant difficulties in giving feedback	No response or no discernible connection to the specified task