

		Observing MEES Standards	Developing MEES Standards	Demonstrating MEES Standards
Types of Videos	<u>Interviews with Students</u> ¹ (p. 136-137)	Standard 2: Student Learning, Growth, and Development	Standard 7: Student Assessment and Data Analysis.	Standard 7 (If student understanding from the interview is then used as evidence to plan possible future instruction)
	<u>Videos of Classroom Lessons</u> ¹ (p. 137) (<u>Unedited, full-length videos</u> ² – p. 343 - that provide a more authentic experience of normal instructional routines and show how elements of the classroom are inter-related)	Standards 1: Content Knowledge Aligned with Appropriate Instruction, 2: Student Learning, Growth, and Development, 3: Curriculum Implementation, 4: Critical Thinking, 5: Positive Classroom Environment, 6: Effective Communication, and 7: Student Assessment and Data Analysis depending on the focus		
	<u>Pre-Service Teacher Selected Videos</u> ¹ (p. 137) (Having pre-service teachers find examples of strategies for visible student thinking and effective questioning)	Provides opportunities for standards 1: Content Knowledge Aligned with Appropriate Instruction, 2: Student Learning, Growth, and Development, 3: Curriculum Implementation, 4: Critical Thinking, 5: Positive Classroom Environment, 6: Effective Communication, and 7: Student Assessment and Data Analysis through searching for and watching videos	Standard 1: Content Knowledge Aligned with Appropriate Instruction and Standard 2: Student Learning, Growth, and Development (By exposing pre-service teachers to more strategies to implement) Standard 4: Critical Thinking Standard 8: Professionalism	Standard 4: Critical Thinking (If selecting videos that show effective strategies for visible student thinking or videos that show effective questioning) Standard 8: Professionalism

<p>Video Selection Criteria</p>	<p><u>Focus on the Content Portrayed</u>¹ (p. 137-139) (Including a variety of subjects, instructional strategies, procedures, and student activities)</p>	<p>Standard 1: Content Knowledge Aligned with Appropriate Instruction Standard 3: Curriculum Implementation</p>	<p>Standard 1: Content Knowledge Aligned with Appropriate Instruction Standard 3: Curriculum Implementation</p>	
<p>Video Selection Criteria</p>	<p><u>Teaching that Makes Student Thinking Visible</u>¹ (p. 137-139) (Including clear audio of teacher-student or student-student interactions or clear images of student work)</p>	<p>Standard 4: Critical Thinking Standard 5: Positive Classroom Environment</p>	<p>Standard 4: Critical Thinking Standard 7: Student Assessment and Data Analysis</p>	<p>Standard 7: Student Assessment and Data Analysis (If student learning is used to monitor student progress then as evidence to plan possible future instruction) Standard 8: Professionalism (If student thinking is used to reflect on the effectiveness of the lesson)</p>
	<p><u>A Diversity in the Backgrounds of the Students and Teachers</u>¹ (p. 137-139) (A variety of SES and ethnic backgrounds)</p>	<p>Standard 2: Student Learning, Growth, and Development Standard 6: Effective Communication</p>	<p>Standard 2: Student Learning, Growth, and Development Standard 6: Effective Communication</p>	
<p>Watching Process</p>	<p><u>Shared Viewing</u>³ (Pre-service teachers and instructors viewing lessons at the same time and following them with collaboration, discussion, and critical reflection)</p>	<p>Standard 9: Professional Collaboration</p>	<p>Standard 8: Professionalism Standard 9: Professional Collaboration</p>	<p>Standard 8: Professionalism Standard 9: Professional Collaboration</p>

Watching Process	<p style="text-align: center;"><u>Pre-Service Teachers Deriving Information About the Classroom</u>² (p.339)</p> <p>(Rather than being told the information ahead of time – ex.: being told to look for the rules while observing rather than being given the rules beforehand – more effective at promoting reflective thinking)</p>	<p>Standards 1: Content Knowledge Aligned with Appropriate Instruction, 2: Student Learning, Growth, and Development, 3: Curriculum Implementation, 4: Critical Thinking, 5: Positive Classroom Environment, 6: Effective Communication, and 7: Student Assessment and Data Analysis depending on the focus</p>	<p>Standard 2: Student Learning, Growth, and Development (Noticing and inferencing differentiations based on students’ needs and interests)</p> <p>Standard 5: Positive Classroom Environment (Noticing and identifying proactive classroom management strategies)</p>	
	<p style="text-align: center;"><u>Worksheets to Guide Observations</u>² (p.342)</p> <p><u>(Cognitively prepares pre-service teachers by developing observation skills with the guidance of an instructor</u>⁴ – p. 298)</p>	<p>Standards 1: Content Knowledge Aligned with Appropriate Instruction, 3: Curriculum Implementation, 4: Critical Thinking, 5: Positive Classroom Environment, 6: Effective Communication, and 7: Student Assessment and Data Analysis depending on the focus of the observation tasks</p>	<p>Standard 1: Content Knowledge Aligned with Appropriate Instruction</p> <p>Standard 2: Student Learning, Growth, and Development</p> <p>Standard 3: Curriculum Implementation</p> <p>Standard 4: Critical Thinking (For the standards above: evidence shows that pre-service teachers are able to focus more on student learning, engagement, and critical thinking after developing observation skills^{2 4})</p> <p>Standard 8: Professionalism</p>	<p>Standard 8: Professionalism (If used to then discuss the lesson and reflect on the effectiveness of the observed tasks)</p>
	<p style="text-align: center;"><u>Recording Instructional Methods or Techniques and their Positive and Negative Effects</u>² (p. 342 & 348)</p> <p>(Provides a more targeted approach to early observations and practice reflecting on the effectiveness of different methods)</p>	<p>Standards 1: Content Knowledge Aligned with Appropriate Instruction, 3: Curriculum Implementation, 4: Critical Thinking, 5: Positive Classroom Environment, 6: Effective Communication, and 7: Student Assessment and Data Analysis depending on the focus</p>	<p>Standards 1: Content Knowledge Aligned with Appropriate Instruction, 2: Student Learning, Growth, and Development, 4: Critical Thinking, and 6: Effective Communication depending on the methods recorded and critiqued</p> <p>Standard 7: Student Assessment and Data Analysis</p> <p>Standard 8: Professionalism</p>	<p>Standard 7: Student Assessment and Data Analysis (If critiques to the observed methods and their outcomes on student learning are then used to plan possible alternative instruction)</p> <p>Standard 8: Professionalism</p>

	<p><u>Text Chat Features During Observations</u>³ (p. 429-430) (including the pre-service teachers and instructors)</p>	<p>Standard 8: Professionalism Standard 9: Professional Collaboration</p>	<p>Standard 8: Professionalism Standard 9: Professional Collaboration</p>	<p>Standard 8: Professionalism Standard 9: Professional Collaboration</p>
Lesson Analysis Framework	<p><u>Lesson Analysis Framework</u> <u>(Santagata & Guarino: "Using Video to Teach Future Teachers to Learn From Teaching")</u>¹</p>			
	<p>1. Identifying Lesson Learning Goals</p>	<p>Standard 3: Curriculum Implementation</p>	<p>Standard 3: Curriculum Implementation</p>	<p>Standard 3: Curriculum Implementation</p>
	<p>2. Analyzing Student Thinking and Learning (Through visible student learning or student work examples)</p>	<p>Standard 4: Critical Thinking</p>	<p>Standard 7: Student Assessment and Data Analysis</p>	<p>Standard 7: Student Assessment and Data Analysis</p>
Lesson Analysis Framework	<p>3. Constructing Hypotheses About the Effects of Teaching on Students' Learning</p>	<p>Standards 1: Content Knowledge Aligned with Appropriate Instruction, 2: Student Learning, Growth, and Development, 3: Curriculum Implementation, 4: Critical Thinking, 5: Positive Classroom Environment, and 6: Effective Communication depending on the lesson observed</p>	<p>Standard 2: Student Growth, Learning, and Development Standard 7: Student Assessment and Data Analysis Standard 8: Professionalism</p>	<p>Standard 7: Student Assessment and Data Analysis Standard 8: Professionalism</p>
	<p>4. Using Analysis to Propose Improvements in Teaching</p>	<p>Standard 2: Student Learning, Growth, and Development Standard 3: Curriculum Implementation Standard 4: Critical Thinking</p>	<p>Standard 2: Student Learning, Growth, and Development Standard 3: Curriculum Implementation Standard 4: Critical Thinking Standard 7: Student Assessment and Data Analysis Standard 8: Professionalism</p>	<p>Standard 2: Student Learning, Growth, and Development Standard 3: Curriculum Implementation Standard 4: Critical Thinking Standard 7: Student Assessment and Data Analysis Standard 8: Professionalism</p>

Post-Watching Activities	Ongoing Discussion Threads Among Pre-Service Teachers, Instructors, and In-Service Mentor Teachers ³ (p. 429-430)	Standard 8: Professionalism Standard 9: Professional Collaboration	Standard 8: Professionalism Standard 9: Professional Collaboration	Standard 8: Professionalism Standard 9: Professional Collaboration
	Small-Group then Whole-Group Debriefs ² (p. 343) <small>(where lessons are reinterpreted to <u>make inferences about the complexity of planned classroom instruction</u>)</small>	Standards 1: Content Knowledge Aligned with Appropriate Instruction, 4: Critical Thinking, 5: Positive Classroom Environment, and 6: Effective Communication depending on the focus	Standard 2: Student Learning, Growth, and Development <small>(Inferencing differentiations based on students' needs and interests)</small> Standard 3: Curriculum Implementation <small>(Recognizing the importance of long-range planning and curriculum development)</small> Standard 8: Professionalism	Standard 8: Professionalism

¹ Santagata, R., Guarino, J. Using video to teach future teachers to learn from teaching. *ZDM Mathematics Education* **43**, 133–145 (2011). <https://doi.org/10.1007/s11858-010-0292-3>
Great resource for all levels of field experiences and includes the lesson analysis framework

² Salajan, F., & Duffield, S. (2019) Enhancing Pre-service Teachers' Professional Practice Through Reflection on the Action of Others: The Development of the Heterospective Reflection Framework Informed by Virtual Field Experiences, *The Teacher Educator*, 54:4, 333-358. <https://doi.org/10.1080/08878730.2018.1557309>
Includes a lot of information on guiding beginning field experiences and developing observation skills

³ Heafner, T., & Plaisance, M. (2012). Shared viewing as an approach to transforming early field experiences. *Contemporary Issues in Technology and Teacher Education*, 12(4). Retrieved from <https://citejournal.org/volume-12/issue-4-12/current-practice/shared-viewing-as-an-approach-to-transforming-early-field-experiences/>
Presents ideas that are more similar to culminating field experiences that include professional collaboration and reflection

⁴ Hixon, E. & So, H.J. (2009). Technology's Role in Field Experiences for Preservice Teacher Training. *Journal of Educational Technology & Society*, 12(4), 294-304. Retrieved June 23, 2020 from <https://www.learntechlib.org/p/74980/>.
Reviews the pros and cons of both traditional and virtual field experiences and provides research and evidence for cognitively preparing pre-service teachers to benefit more from observations

