Curriculum, Instruction & Assessment Equals Evaluation of Student Learning Based on the Classroom Assessment Standards

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Abstract

The manuscript demonstrates an instructional approach for teacher evaluation of student learning by using the Classroom Assessment Standards. The Classroom Assessment Standards were developed by the Joint Committee on Standards for Educational Evaluation which is an international "coalition of major professional associations concerned with the quality of evaluation."The Classroom Assessment Standards invite colleges of education to "use the standards to inform the development of courses for pre-service educators in the area of assessment." The Classroom Assessment Standards are the course goals and the framework for assessing progress towards meeting these course goals in the form of standards-based grading.

Introduction

The Classroom Assessment Standards are used as the basis for a teacher education course titled, Educational Measurement. The Classroom Assessment Standards invite colleges of education to "use the standards to inform the development of courses for pre-service educators in the area of assessment" (Classroom Assessment Standards) The Classroom Assessment Standards were adopted on September 22, 2104 by the Joint Committee on Standards for Educational Evaluation. The Joint Committee on Standards for Educational Evaluation is an organization with international representation. The "Joint Committee is a coalition of major professional associations concerned with the quality of evaluation" (Joint Committee on Standards for Educational Evaluation) and has several internationally used published sets if evaluation standards. The Classroom Assessment Standards are the course goals and are used as the framework for assessing progress towards meeting these course goals in the form of standards-based grading. Clear course goals provide the structure for more specific grading and feedback about progress towards meeting these goals (Bloom, Hastings & Madaus, 1971; Guskey, 2001; Guskey, 1997; Guskey& Bailey, 2001; Gareis & Grant, 2008; Gronlund & Brookhart, 2008; Tyler, 1949; Waugh &Gronlund, 2013; Wiggins, 2012). Using the Classroom Assessment Standards as course goals and for reporting feedback towards meeting those goals has made the Curriculum, Instruction and Assessment Equals Evaluation of Student Learning quite explicit for this course (Guskey, 2001; Guskey, 1997). The Classroom Assessment Standards are the basis for this development and instructionally effective approach for teaching third year pre-service teachers how to design Curriculum, Instruction and Assessment Equals Evaluation of Student Learning for evaluating

student learning. Examples of the standards-based grading and reporting documents used for feedback about progress towards meeting the Classroom Assessment Standards in the course areprovided.

The manuscript connects evaluation of student learning research (Waugh &Gronlund, 2013) to actual classroom based teacher practice with repetitive application of the instructionally based evaluation of student learning methods in the pre-service teacher education course. The instructionally based evaluation of student learning methods described in the manuscript on the Curriculum, Instruction and Assessment Equals Evaluation of Student Learning assignments are repeated weekly because the human brain learns by repetition (Hauptmann &Karni, 2002 &Caine & Caine, 1991). The repetitive nature of the methods described in the manuscript ensures that these research-based evaluation of student learning instructional methods are actually used.

Educational Measurement Students

The students who take the course, Educational Measurement are third year undergraduate students. They are immersed in a weekly intensive field practicum while taking the Educational Measurement course. The textbook for the class at this time is, *Assessment of Student Achievement, Tenth Edition* by C. Keith Waugh & Norman E. Gronlund.

How the Classroom Assessment Standards Are Used

The class is focused on evaluating student learning through the moment to moment endeavors of a classroom teacher with Curriculum, Instruction and Assessment Equals Evaluation of Student Learning. The students are told that we are all in the CIA=E, meaning Curriculum, Instruction and Assessment Equals Evaluation of Student Learning. The Classroom Assessment Standards are used as course goals, learning objectives for each class session as well as the framework for feedback towards meeting these course goals and objectives. This framework for feedback is structured for standards-based grading. The templates and examples of the documents used demonstrate the ways the Classroom Assessment Standards are used for standards-based grading. Standards-based grading takes a lot of work (Guskey& Bailey, 2001). Each pre-service teacher receives an individualized *Feedback CIA=E* for each *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning* work submitted each week during the course over email. Multiple measures are important (Brookhart, 2009). It is better to evaluate a pre-service teacher's performance and ability to meet course goals with a one-time only measure so each pre-service teachers brings in weekly work from their field placement classrooms. The pre-service teachers are to increase their skills to teach and assess student learning as they move through the semester long course. The *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #1, #2* and *#3* become more work intensive throughout the semester to reflect course progression. Each section of the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning* work to meet each Classroom Assessment Standard is described in this manuscript. The move to standards-based grading instead of letter grades on course assignments was made because letter grading does not communicate specific progress towards meeting course goals (Brookhart, 2004). The *Feedback CIA=Es#1, #2* and *#3*communicate specific aspects of evaluating student learning that these pre-service teachers need to develop to meet the Classroom Assessment Standards. Additionally, using the Classroom Assessment Standards for standards-based grading provides a model of the expectations for these pre-service teachers to use with their own students in their field work. Modeling standards-based grading is essential for these pre-service teachers because many P-12 schools that hire our graduates use standards-based grading.

The manuscript describes the Classroom Assessment Standards grading and feedback approach as criterion grading (Guskey, 2001). "Grades based on clearly stated learning criteria have direct meaning and communicate that meaning" (Guskey, 2001). The criterion for grading is communicated on the *Feedback*

CIA=Es#1, #2 and *#3*(Guskey, 1997 &2001; Klinger, Howard & Munoz, 2013; Winger, 2009). In addition to feedback from the course instructor there are weekly peer and self-reviews. "Peer critiques make audience more than a theoretical construct; they give that audience a voice" (Reynolds, 2009). Examples of feedback given for progress to meet specific Classroom Assessment Standards are provided in the manuscript.

The Classroom Assessment Standards

The Classroom Assessment Standards can be accessed at the Joint Committee on Standards for Educational Evaluation website, http://www.jcsee.org/. "Without sound assessment practices, we may not know if students are progressing as planned. Further, we may not be able to effectively plan for students' future learning opportunities" (Classroom Assessment Standards). The Classroom Assessment Standards are organized into three sections; Foundations (F), Use (U) and Quality (Q). "The six Foundation standards encompass the basis for developing and implementing sound and fair classroom assessment practices that are focused on the students to be assessed….The five Use standards align with the assessment process and follow a logical progression from the selection and development of classroom assessments to the communication of the assessment results... Quality assessments yield results that are accurate and reliable, are free of bias, and include all students. Additionally, it is important that teachers review their assessment practices and revise them so that they reflect current and best assessment practice" (Classroom Assessment Standards)

The manuscript demonstrates the progression of course content throughout the semester. Course content progresses with three assignments. The three assignment templates are titled, *Curriculum, Instruction & Assessment for Evaluation of Student Learning #1, #2 and #3* and the corresponding standards-based grading documents are provided and titled, *Feedback CIA=E#1, #2 and #3*. Each section of these assignments is described and the Classroom Assessment Standards that the assignment addresses are noted.

First Assignment: CIA=E #1

Pre-service teachers are introduced the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning* weekly work during the first week of class. Each pre-service teacher is to design, teach and document one lesson that week that meets each criterion and corresponding Classroom Assessment Standard on the *Curriculum Instruction Assessment Equals Evaluation of Student Learning #1*. Many categories of work found on the *Feedback CIA=E #1*are content these students have been exposed to throughout their freshmen, sophomore and junior years in our teacher education program. The above template titled, *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #1* is the first assignment and first weekly assessment for grading and feedback is titled, *Feedback CIA=E #1*. The *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #1*Template and Feedback Rubric below introduce the pre-service teachers in the Educational Measurement class to the Classroom Assessment Standards and an approach to formatively assess student learning. The template titled, *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #1* is completed for each pre-service teacher's first three weeks of class work. The *Feedback CIA=E #1*is used to communicate the corresponding Classroom Assessment Standard(s) and the way feedback and assignment points to each pre-service teacher is provided. These pre-service teachers in their third year of teacher education teach real K-12 students one and half days during the week in K-12 classrooms. This immersion within the field while taking the course Educational Measurement provides the classrooms where pre-service teachers intentionally implement the Classroom Assessment Standards on a regular basis to impact and evaluate student learning. As course content progressively builds throughout the semester pre-service teachers are assessed using *Feedback CIA=E #2 and #3*. This progression is outlined in subsequent sections of the

manuscript. Pre-service teachers complete the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #1*for the first three weeks of the semester. Work is graded and feedback is provided on the *Feedback CIA=E #1*provided above. The following sections describe each section of the *Feedback CIA=E #1*.

Curriculum, Instruction & Assessment Equals Evaluation of Student Learning #1

Lesson Objectives/ Learning Targets In parentheses, indicate the level of cognitive demand using the Taxonomy, 1956 (knowledge, comprehension, application, etc.…) for each assessment item. **Add rows as necessary.**	*What do you do to know that the student met the Objective/Target* **Evidence of Learning the Objective/Target** **Assessment Item**	Instructional Strategies/Activities
Objective/target:	Formative Assessment Item(s):	Strategies/Activities: Media/technologies/resources:
Objective/target:	Formative Assessment Item(s):	Strategies/Activities: Media/technologies/resources:

Name:

Criteria for Met or Not Met Learning Objective(s)/Target(s)

Learning Objective / Target	Met Criteria	Not Met Criteria

Reflection
Based on your evaluation of student success, describe how you might change the objective(s)/target(s), assessment items, instruction or criteria for meeting the objective(s)/target(s)

Modified fromKentucky Teacher Internship Program materials Retrieved January 19, 2014 from http://www.epsb.ky.gov/internships/ktip.asp

Feedback Curriculum, Instruction & Assessment Equals Evaluation of Student Learning #1
60 points

Name:

Your Work	Classroom Assessment Standard	Rating with Feedback	Points
		Yes	**10**
		Yes, but	**9-7**
		No, and	**6-4**
		No	**4-0**
Objective(s)/ Target(s)	F 1 Assessment Purpose: Classroom assessment practices should have a clear purpose that supports teaching and learning. F 2 Learning Expectations: Learning expectations should form the foundation for aligning classroom assessment practices with appropriate instruction and learning opportunities for each student. F 3 Assessment Design: The types and methods of classroom assessment used should clearly allow students to demonstrate their learning. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills.		
Instruction	F 2 Learning Expectations: Learning expectations should form the foundation for aligning classroom assessment practices with appropriate instruction and learning opportunities for each student. F 5 Assessment Preparation: Adequate teacher and student preparation in terms of resources, time and learning opportunities should be part of classroom assessment practices. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills.		

Level of Cognitive Demand Indicated (use Taxonomy by Bloom, et. al., 1956)	F 1 Assessment Purpose: Classroom assessment practices should have a clear purpose that supports teaching and learning. F 2 Learning Expectations: Learning expectations should form the foundation for aligning classroom assessment practices with appropriate instruction and learning opportunities for each student. F 3 Assessment Design: The types and methods of classroom assessment used should clearly allow students to demonstrate their learning. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills.		
Assessment Item(s)	F 2 Learning Expectations: Learning expectations should form the foundation for aligning classroom assessment practices with appropriate instruction and learning opportunities for each student. F 3 Assessment Design: The types and methods of classroom assessment used should clearly allow students to demonstrate their learning. Q 3 Unbiased and Fair Assessment: Classroom assessment practices and subsequent decisions should be free from all factors unrelated to the intended purposes of the assessment. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills.		
Criteria for Met or Not Met	U 1 Analysis of Student Performance: The methods for analyzing evidence of student learning should be appropriate for the assessment purpose and practice.		
Reflection	Q 5 Reflection: Classroom assessment practices should be monitored and revised to improve their overall quality.		
Peer & Self Evaluation	F 4 Student Engagement in Assessment: Students should be meaningfully engaged in the assessment process and use of the assessment evidence to enhance their learning. Q 5 Reflection: Classroom assessment practices should be monitored and revised to improve their overall quality.		

Objectives/Targets

For these pre-service teachers we begin with the curriculum taught. The curriculum taught is stated in the learning *Objectives/Targets.* Pre-service teachers observe different types of educational goals, learning objectives and learning targets written by their host teachers during student teaching. For this course learning objectives are defined as "what students are expected to learn and be able to do as a result of their involvement in a particular learning unit" (Guskey, 1997, 28). For this work we focus on the learning objectives for just one observed class session from weekly field work. Learning objectives are clear, measurable and written in third person. Learning targets are defined similarly but written in first person often times beginning with "I" statements (Stiggins, Arter, Chappuis & Chappuis, 2006). It does not matter to me if they choose to use third person or first person. What does matter to me is that they write these objectives/targets with one verb and no instructional strategy is listed in the objective/target (Gronlund & Brookhart, 2009; Waugh &Gronlund, 2012; Guskey, 1997; Bloom, Hastings & Madaus, 1971; Stiggins, Arter, Chappuis & Chappuis, 2006). Objectives/targets are aligned to appropriate national and state curricular documents and standards. For this course, Educational Measurement, learning objectives/targets are written with the least amount of words as possible.

Instruction

The *Instruction* category is the section where the pre-service teacher delineates the ways the students will be engaged with curriculum in the class to learn *Objectives/Targets* (Waugh &Gronlund, 2013). The *Instruction* category is essential because pre-service teachers "need to see their assessments as an integral part of the instruction process" (Guskey, 2003). Instructional activities and estimated amounts of time for each activity are provided for the lesson. Each student is to be engaged with the instructional activities to learn curriculum. Pre-service teachers are to vary their instructional activities, meaning they do not engage students with one activity for an entire class session. Within this section pre-service teachers describe differentiated instructional strategies used to meet diverse learning needs. Formative assessment items are to be included in this section where they fall chronologically within the instructional sequence.

Level of Cognitive Demand Indicated (use Taxonomy by Bloom, et. al., 1956)

In the *Level of Cognitive Demand Indicated* section the pre-service teachers evaluate the verbs in the learning *Objectives/Targets* against the instruction to prepare for the *Forthcoming Assessment Item(s)* section. In the *Level of Cognitive Demand Indicated* pre-service teachers categorize the verb in each of the learning *Objectives/Targets* to one of the levels of The Taxonomy of Educational Objectives: The Cognitive Domain (Bloom, Englehart, Furst, Hill & Krathwohl, 1956). Pre-service teachers do the following; specify one verb in each learning objective/target, design instruction that teaches the learning *Objectives/Targets* at the same specified level of cognitive demand and then assess student learning at that same level of cognitive demand (Garies& Grant, 2012; Garies& Grant, 2008; Waugh &Gronlund, 2013; Guskey, 1997). The *Level of Cognitive Demand Indicated* section is intended to be evaluative. The pre-service teachers make sure they have clear learning *Objectives/Targets* that clearly state learning outcomes to assess student learning. We begin the course with everyone using The Taxonomy of Educational Objectives: The Cognitive Domain (Bloom, Englehart, Furst, Hill & Krathwohl, 1956) to discern cognitive demand. Our course textbook, *Assessment of Student Achievement, Tenth Edition* by C. Keith Waugh & Norman E. Gronlund, uses *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives* by Anderson, et.al. (2000) we add the option to use the Revised Taxonomy a few weeks into the semester on the next *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #2* after we complete the content of chapter 3 of the Waugh & Gronlund text.

Formative Assessment Item(s)

The *Formative Assessment Item(s)* section is where pre-service teachers evaluate each formative assessment item for the lesson. Pre-service teachers make sure the *Formative Assessment Item(s)* assess the *Objectives/Targets* at the same level of cognitive demand as the learning objectives/targets(Grant & Gareis, 2012; Garies & Grant, 2008; Waugh & Gronlund, 2013; Goodwin, 2009; Guskey, 1997). The *Formative Assessment Item(s)* are placed in chronological order when each *Formative Assessment Item(s)* is given to students during instruction within the lesson. Each assessment item is to clearly measure the intended learning *Objectives/Targets*. Assessment accommodations are varied and appropriate as specified by IEPs/504 plans. The formative assessments are used to determine if students met each objective/target and if the instruction facilitated that learning of the curriculum that was taught in the lesson (Bloom, Hastings, Madaus, 1971, Guskey, 1997, Kifer, 1997). The lesson has already been taught and pre-service teachers bring in student assessment data collected with the *Formative Assessment Item(s)*. With the student assessment data they review the wording and structure of the assessment item(s) to make sure the item(s) is written clearly so that students are able to respond appropriately (Waugh & Gronlund, 2013, Guskey, 2003,Grant&Gareis, 2012; Garies& Grant, 2008).

Criteria for Met or Not Met Objectives/Targets

Pre-service teachers determine the criteria for meeting or not meeting each objective/target in this section titled, *Criteria for Met or Not Met Objectives/Targets.* Determining the *Criteria for Met or Not Met Objectives/Targets* is about the curriculum learned or not learned (Kifer, 1997). Pre-service teachers specify the levels of student performance for each learning objective/target. In the *Criteria for Met or Not Met Objectives/Targets* section pre-service teacher determines whether students met or did not meet the established criteria for each learning objective/target. They analyze student performance for each objective/target in terms of effectiveness of instruction. One intent of this section, *Criteria for Met or Not Met Objectives/Targets*, is for the pre-service teachers to "recognize that their effectiveness is not defined on the basis of what they do as teachers but rather on what their students are able to do" (Guskey, 2003).

The *Criteria for Met or Not Met Objectives/Targets* section addresses this Classroom Assessment Standard, U 1 Analysis of Student Performance: The methods for analyzing evidence of student learning should be appropriate for the assessment purpose and practice. This section along with the following section, *Enrichments/Correctives or Move On*, have become formal ways to provide feedback about instructional changes based on assessment data.

Reflection

The *Reflection* section is where pre-service teachers review the methods used for Curriculum, Instruction and Assessment Equals Evaluation of Student Learning and make sense of the lesson by discussing their evaluation of student learning.

Self & Peer Evaluation

The *Self & Peer Evaluation* guides the pre-service teachers through a review of each other's work. Pre-service teachers meet in Learning Communities at the start of each class. In the Learning Community each pre-service teacher self and peer evaluates all work described in the above sections and brought to class using the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #1* template (McLaughlin & Talbert, 2006). Each member of the Learning Community provides evaluative feedback on the *Feedback CIA=E #1*. Feedback is provided for each category of the *Feedback CIA=E #1*. The Learning Community's goal is to engage the pre-service teachers in assessment data driven discussions about student

learning. Pre-service teachers are instructed to use the feedback for getting better at designing lessons using the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #1.*

Second Assignment: Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #2
      Course content progresses with additional Classroom Assessment Standards. For the next couple of weeks pre-service teachers complete all the sections described above and we add on several sections to their weekly work, *Context, Student Demographics, Accommodations and/or Modifications as necessary, Level of Cognitive Demand Indicated* now there is a choice in which Taxonomy to use, *Teacher-Made Item(s)* and *External Item(s).*Each of these sections are discussed below.

Curriculum, Instruction & Assessment Equals Evaluation of Student Learning #2
Name:

Lesson Objectives/ Learning Targets	*What do you do to know that the student met the Objective/Target*	Instructional Strategies/Activities
In parentheses, indicate the level of cognitive demand using the Taxonomy, 1956 (knowledge, comprehension, application, etc.…) for each assessment item. OR the Revised Taxonomy (Anderson, et. al., 2000). **Add rows as necessary.**	**Evidence of Learning the Objective/Target** **Teacher-Made Assessment Item(s)** **External Assessment Item(s)** Each learning objective/target is measured by a formative assessment item.	

Context, Student Demographics

Objective/target:	Formative Assessment Item(s):	Strategy/Activity: Media/technologies/resources:
Objective/target:	Formative Assessment Item(s):	Strategy/Activity: Media/technologies/resources:

Instruction/Procedures:

List in chronological order the sequence of strategies and activities you will use to engage students and accomplish your objectives. Within this sequence, describe how the differentiated strategies will meet individual student needs and diverse learners in your plan. Add more rows as necessary.

Time	Description

Criteria for Met or Not Met Learning Objective(s)/Target(s)

Learning Objective / Target	Met Criteria	Not Met Criteria

Peer & Self Evaluation

Reflection

Based on your evaluation of student learning to meet the objective(s)/target(s), describe how you might change the objective(s)/target(s), assessment items, instruction or criteria for meeting the objective(s)/target(s)

Modified fromKentucky Teacher Internship Program materials Retrieved January 19, 2014 from
       http://www.epsb.ky.gov/internships/ktip.asp

Feedback Curriculum, Instruction & Assessment Equals Evaluation of Student Learning #2
Name:
   100 points

Your Work	Classroom Assessment Standard	Rating with Feedback	Points
		Yes	10
		Yes, but	9-7
		No, and	6-4
		No	4-0
Context, Student Demographics	Q1 Cultural and Linguistic Diversity: Classroom assessment practices should be responsive to and respectful of the cultural and linguistic diversity of students and their communities. Q2 Exceptionality and Special Education: Classroom assessment practices should be appropriately differentiated to meet the specific educational needs of all students.		
Accommodations and/or Modifications as necessary	Q2 Exceptionality and Special Education: Classroom assessment practices should be appropriately differentiated to meet the specific educational needs of all students.		
Objective(s)/ Target(s)	F 1 Assessment Purpose: Classroom assessment practices should have a clear purpose that supports teaching and learning.		

	F 2 Learning Expectations: Learning expectations should form the foundation for aligning classroom assessment practices with appropriate instruction and learning opportunities for each student. F 3 Assessment Design: The types and methods of classroom assessment used should clearly allow students to demonstrate their learning. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills.		
Instruction	F 2 Learning Expectations: Learning expectations should form the foundation for aligning classroom assessment practices with appropriate instruction and learning opportunities for each student. F 5 Assessment Preparation: Adequate teacher and student preparation in terms of resources, time and learning opportunities should be part of classroom assessment practices. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills.		
Level of Cognitive Demand use Taxonomy by Bloom, et. al., 1956 OR Revised Taxonomy by Anderson, et.al., 2000	F 1 Assessment Purpose: Classroom assessment practices should have a clear purpose that supports teaching and learning. F 2 Learning Expectations: Learning expectations should form the foundation for aligning classroom assessment practices with appropriate instruction and learning opportunities for each student. F 3 Assessment Design: The types and methods of classroom assessment used should clearly allow students to demonstrate their learning. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills.		

Teacher Made Item(s)	F 1 Assessment Purpose: Classroom assessment practices should have a clear purpose that supports teaching and learning. F 2 Learning Expectations: Classroom assessment practices should align with the appropriate learning expectations and instruction intended for each student. F 3 Assessment Design: The types and methods of classroom assessment used should clearly allow students to demonstrate their learning. U 1 Analysis of Student Performance: The methods for analyzing evidence of student learning should be appropriate for the assessment purpose and practice. Q 1 Cultural and Linguistic Diversity: Classroom assessment practices should be responsive to and respectful of the cultural and linguistic diversity of students and their communities. Q 2 Exceptionality and Special Education: Classroom assessment practices should be appropriately differentiated to meet the specific educational needs of all students. Q 3 Unbiased and Fair Assessment: Classroom assessment practices and subsequent decisions should be free from all factors unrelated to the intended purposes of the assessment. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills. Q 5 Reflection: Classroom assessment practices should be monitored and revised to improve their overall quality.		
External Item(s) NAEP Questions Tool, District, textbook, etc.	F 1 Assessment Purpose: Classroom assessment practices should have a clear purpose that supports teaching and learning. F 2 Learning Expectations: Classroom assessment practices should align with the appropriate learning expectations and instruction intended for each student.		

	F 3 Assessment Design: The types and methods of classroom assessment used should clearly allow students to demonstrate their learning. U 1 Analysis of Student Performance: The methods for analyzing evidence of student learning should be appropriate for the assessment purpose and practice. Q 1 Cultural and Linguistic Diversity: Classroom assessment practices should be responsive to and respectful of the cultural and linguistic diversity of students and their communities. Q 2 Exceptionality and Special Education: Classroom assessment practices should be appropriately differentiated to meet the specific educational needs of all students. Q 3 Unbiased and Fair Assessment: Classroom assessment practices and subsequent decisions should be free from all factors unrelated to the intended purposes of the assessment. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills. Q 5 Reflection: Classroom assessment practices should be monitored and revised to improve their overall quality.		
Criteria for Met or Not Met	U 1 Analysis of Student Performance: The methods for analyzing evidence of student learning should be appropriate for the assessment purpose and practice.		
Reflection	Q 5 Reflection: Classroom assessment practices should be monitored and revised to improve their overall quality.		
Peer & Self Evaluation	F 4 Student Engagement in Assessment: Students should be meaningfully engaged in the assessment process and use of the assessment evidence to enhance their learning. Q 5 Reflection: Classroom assessment practices should be monitored and revised to improve their overall quality.		

Context, Student Demographics

Context matters (Bloom, Hastings & Madaus, 1971). Contextual characteristics ofK-12 students being taught by these pre-service teachers are described in this section. Pre-service teachers are to note specific learning issues for students for one class session that the pre-service teacher is teaching. In this section pre-service teachers are to discern student demographic information that is relevant for classroom learning. An example of a contextual characteristic is a student who requires a scribe. The student who requires a scribe will need differentiated instructional materials as well as a scribe. Grade level reading levels and prior knowledge are also characteristics of student context that are described in this section.

Accommodations and/or Modifications as necessary

In addition to general contextual characteristics the pre-service teachers are to specifically identify accommodations and/or modifications for any students in need within the class that they teach. The definitions of accommodations and modifications for this course are as follows. Accommodations are changes to instruction or materials used with specific students based on their needs. Modifications are changes to the learning objectives/targets. The student identified in the *Context, Student Demographics* section who needs a scribe may need accommodated materials such as a word bank with pictures alongside relevant terms for our lesson. Or the student who requires the scribe may need to have oral opportunities to demonstrate knowledge in addition to having a scribe write for that student.

Level of Cognitive Demand Indicated (use Taxonomy by Bloom, et. al., 1956**OR** Revised Taxonomy by Anderson, et.al., 2000)

Pre-service teachers tend to prefer the original work, The Taxonomy of Educational Objectives: The Cognitive Domain (Bloom, Englehart, Furst, Hill & Krathwohl, 1956) to discern the *Level of Cognitive Demand Indicated* in each of the learning *Objectives/Targets* but the course textbook, *Assessment of Student Achievement, Tenth Edition* by C. Keith Waugh & Norman E. Gronlund, uses *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives, Abridged* by Anderson, et.al. so the option to use the revised taxonomy a few weeks into the semester on the next *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #2* after the content of chapter 3 of the Waugh & Gronlund text is used in class. Pre-service teachers have the option to use either the original work from Bloom, et.al.(1956), or the revised work from Anderson, et.al.(2000), for the *Level of Cognitive Demand Indicated.*

Teacher-Made Item(s)

"The assessments best suited to guide improvements in student learning are the quizzes, tests, writing assignments, and other assessments that teachers administer on a regular basis in their classrooms. Teachers trust the results from these assessments because of their direct relation to classroom instructional goals. Plus, results are immediate and easy to analyze at the individual student level" (Guskey, 2003). A very explicit and major intent of this courseis "developing teachers' competency in test-making" (Gareis& Grant, 2008). In this section, *Teacher-Made Item(s)*, pre-service teachers create their own assessments to measure learning *Objectives/Targets*. Pre-service teachers are expected to write select response, supply response and performance assessments items throughout the course. We use the rules for select response, supply response and performance assessment item writing found in our textbook for the course, *Assessment of Student Achievement, Tenth Edition* by C. Keith Waugh & Norman E. Gronlund, to develop the pre-service teachers' assessment items writing skills.

External Item(s)

For this course *External Item(s)* are defined as any assessment item not developed by the pre-service teacher or their host teacher. In this section pre-service teachers are to identify when they use assessment items that we categorize as *External Item(s)*.If they use *External Item(s)* they are to select *External Item(s)* that are at the same cognitive level and assess the same curriculum as the lesson *Objectives/Targets.* The *External Item(s)* section intends to facilitate discernment skills in these pre-service teachers. Pre-service teachers seem to be inundated with the use of assessment items that are not teacher developed. Most of the host teachers they student teach with use textbook developed, school district developed or purchased assessment items from test generators. For this course we also use the NAEP Questions Tool to find externally developed assessment items that can be aligned to lesson learning) *Objectives/Targets*.

Third Assignment: Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #3

At about five or six weeks into the semester this is the time when the pre-service teachers are seeing host teachers design and give end of unit assessments. The pre-service teachers and host teachers begin to configure student grades for a six week grading period. Many schools where our pre-service teachers teach use standards-based grading. The pre-service teachers have been given grades and feedback on the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #1* and *#2* for this course so they are familiar with standards-based grading. During this time of the semester we add on end of unit assessments for formative or summative purposes. The following sections are added on *Readability*, *Enrichments/Correctives or Move On, Person by Item Analysis* and the section *Feedback/Grading/Communication*.

Curriculum, Instruction & Assessment Equals Evaluation of Student Learning #3

Name:

Context, Student Demographics

Lesson Objectives/ Learning Targets	*What do you do to know that the student met the Objective/Target*	Instructional Strategies/Activities
In parentheses, indicate the level of cognitive demand using the Taxonomy, 1956 (knowledge, comprehension, application, etc.…) for each assessment item. OR the Revised Taxonomy (Anderson, et. al., 2000). Each objective/target is *Accessible* to the student population. **Add rows as necessary.**	**Evidence of Learning the Objective/Target** **Teacher-Made Assessment Item(s)** **External Assessment Item(s)** Each learning objective/target is measured by a formative assessment item. Each assessment item is *Accessible* to the student population. Meaning the item and instructional materials are to written at an appropriate reading level for the students.	
Objective/target:	Formative Assessment Item(s):	Strategy/Activity: Media/technologies/resources:
Objective/target:	Formative Assessment Item(s):	Strategy/Activity: Media/technologies/resources:

Instruction/Procedures:
List in chronological order the sequence of strategies and activities you will use to engage students and accomplish your objectives. Within this sequence, describe how the differentiated strategies will meet individual student needs and diverse learners in your plan. Add more rows as necessary.

Time	Description

Criteria for Met or Not Met Learning Objective(s)/Target(s)

Learning Objective / Target	Met Criteria	Not Met Criteria

Person by Item Analysis

insert here

Person by Item Analysis- Formative Assessment
For formative assessment(s) provide a person by item analysis. Use the Excel model then paste table into this document.

	Assessment Item 1	Assessment Item 2	Assessment Item 3	Assessment Item 4	Student Score
Student Name	student score	student score	student score	student score	**(average this row)**
Student Name	student score	student score	student score	student score	**(average this row)**
Student Name	student score	student score	student score	student score	**(average this row)**
Student Name	student score	student score	student score	student score	**(average this row)**
Student Name	student score	student score	student score	student score	**(average this row)**
Student Name	student score	student score	student score	student score	**(average this row)**
Student Name	student score	student score	student score	student score	**(average this row)**
Item Difficulty	**(average this column)**	**(average this column)**	**(average this column)**	**(average this column)**	**(average this column)**

Person by Item Example

	Assessment Item	Assessment Item	Assessment Item	Assessment Item	Student Score
Student Name	0	0	1	0	**0.25**
Student Name	0	0	1	1	**0.50**
Student Name	0	0	1	1	**0.50**
Student Name	1	0	1	1	**0.75**
Student Name	1	1	1	0	**0.75**
Student Name	1	0	1	1	**0.75**
Student Name	0	0	0	0	**0.00**
Item Difficulty	**0.53**	**0.40**	**0.80**	**0.75**	**0.62** *whole class average*

For each student group design correctives, enrichments or state if the class is ready to move on.

Student Group	Correctives, Enrichments or Move On
Not Met Criteria **Design corrective(s)**	
Met Criteria **Design enrichment(s)**	
Move On **If each student met the criteria then move on**	

Peer & Self Evaluation

Reflection

Based on your evaluation of student learning to meet the objective(s)/target(s), describe how you might change the objective(s)/target(s), assessment items, instruction or criteria for meeting the objective(s)/target(s)

Modified fromKentucky Teacher Internship Program materials Retrieved January 19, 2014 from
    http://www.epsb.ky.gov/internships/ktip.asp

Feedback Curriculum, Instruction & Assessment Equals Evaluation of Student Learning #3

Name:
 140 points

Your Work	Classroom Assessment Standard	Rating with Feedback	Points
		Yes	10
		Yes, but	9-7
		No, and	6-4
		No	4-0
Context, Student Demographics	Q1 Cultural and Linguistic Diversity: Classroom assessment practices should be responsive to and respectful of the cultural and linguistic diversity of students and their communities. Q2 Exceptionality and Special Education: Classroom assessment practices should be appropriately differentiated to meet the specific educational needs of all students.		
Accommodations and/or Modifications as necessary	Q2 Exceptionality and Special Education: Classroom assessment practices should be appropriately differentiated to meet the specific educational needs of all students.		
Objective(s)/ Target(s)	F 1 Assessment Purpose: Classroom assessment practices should have a clear purpose that supports teaching and learning. F 2 Learning Expectations: Learning expectations should form the foundation for aligning classroom assessment practices with appropriate instruction and learning opportunities for each student. F 3 Assessment Design: The types and methods of classroom assessment used should clearly allow students to demonstrate their learning.		

	Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills.		
Instruction/Proce dures	F 2 Learning Expectations: Learning expectations should form the foundation for aligning classroom assessment practices with appropriate instruction and learning opportunities for each student. F 5 Assessment Preparation: Adequate teacher and student preparation in terms of resources, time and learning opportunities should be part of classroom assessment practices. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills.		
Level of Cognitive Demand use Taxonomy by Bloom, et. al., 1956 OR Revised Taxonomy by Anderson, et.al., 2000	F 1 Assessment Purpose: Classroom assessment practices should have a clear purpose that supports teaching and learning. F 3 Assessment Design: The types and methods of classroom assessment used should clearly allow students to demonstrate their learning. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills.		
Teacher Made Item(s)	F 1 Assessment Purpose: Classroom assessment practices should have a clear purpose that supports teaching and learning. F 2 Learning Expectations: Learning expectations should form the foundation for aligning classroom assessment practices with appropriate instruction and learning opportunities for each student. F 3 Assessment Design: The types and methods of classroom assessment used should clearly allow students to demonstrate their learning.		

	U 1 Analysis of Student Performance: The methods for analyzing evidence of student learning should be appropriate for the assessment purpose and practice. Q 1 Cultural and Linguistic Diversity: Classroom assessment practices should be responsive to and respectful of the cultural and linguistic diversity of students and their communities. Q 2 Exceptionality and Special Education: Classroom assessment practices should be appropriately differentiated to meet the specific educational needs of all students. Q 3 Unbiased and Fair Assessment: Classroom assessment practices and subsequent decisions should be free from all factors unrelated to the intended purposes of the assessment. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills. Q 5 Reflection: Classroom assessment practices should be monitored and revised to improve their overall quality.		
External Item(s) NAEP Questions Tool, District, textbook, etc.	F 1 Assessment Purpose: Classroom assessment practices should have a clear purpose that supports teaching and learning. F 2 Learning Expectations: Learning expectations should form the foundation for aligning classroom assessment practices with appropriate instruction and learning opportunities for each student. F 3 Assessment Design: The types and methods of classroom assessment used should clearly allow students to demonstrate their learning. U 1 Analysis of Student Performance: The methods for analyzing evidence of student learning should be appropriate for the assessment purpose and practice. Q 1 Cultural and Linguistic Diversity: Classroom assessment practices should be responsive to and respectful of the cultural and linguistic diversity of students and their communities.		

	Q 2 Exceptionality and Special Education: Classroom assessment practices should be appropriately differentiated to meet the specific educational needs of all students. Q 3 Unbiased and Fair Assessment: Classroom assessment practices and subsequent decisions should be free from all factors unrelated to the intended purposes of the assessment. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills.		
Readability	Q1 Cultural and Linguistic Diversity: Classroom assessment practices should be responsive to and respectful of the cultural and linguistic diversity of students and their communities.		
Criteria for Met or Not Met	U 1 Analysis of Student Performance: The methods for analyzing evidence of student learning should be appropriate for the assessment purpose and practice.		
Person by Item Analysis	F 1 Assessment Purpose: Classroom assessment practices should have a clear purpose that supports teaching and learning. F 3 Assessment Design: The types and methods of classroom assessment used should clearly allow students to demonstrate their learning. F 5 Assessment Preparation: Adequate teacher and student preparation in terms of resources, time and learning opportunities should be part of classroom assessment practices. U 1 Analysis of Student Performance: The methods for analyzing evidence of student learning should be appropriate for the assessment purpose and practice. Q 3 Unbiased and Fair Assessment: Classroom assessment practices and subsequent decisions should be free from all factors unrelated to the intended purposes of the assessment. Q 4 Reliability and Validity: Classroom assessment practices should provide consistent, dependable, and appropriate information that supports sound interpretations and decisions about each student's knowledge and skills.		

	Q 5 Reflection: Classroom assessment practices should be monitored and revised to improve their overall quality.		
Enrichments/Correctives or Move On	U 1 Analysis of Student Performance: The methods for analyzing evidence of student learning should be appropriate for the assessment purpose and practice. U 2 Effective Feedback: Classroom assessment practices should provide timely and useful feedback to improve student learning. U 3 Instructional Follow-up: Analysis of student performance should inform instructional planning and next steps to support ongoing student learning. Q 5 Reflection: Classroom assessment practices should be monitored and revised to improve their overall quality.		
Feedback/Grading/Communication	F 6 Informed Students and Parents/Guardians: The purposes and uses of classroom assessment should be communicated to students and, when appropriate, parents/guardians. U 2 Effective Feedback: Classroom assessment practices should provide timely and useful feedback to improve student learning U 4 Grades and Summary Comments: Summative grades and comments should reflect student achievement of the learning expectations. U 5 Reporting: Assessment reports should be based on a sufficient body of evidence and provide a summary of a student's learning in a clear, timely, accurate, and useful manner.		
Reflection	Q 5 Reflection: Classroom assessment practices should be monitored and revised to improve their overall quality.		
Peer & Self Evaluation	F 4 Student Engagement in Assessment: Students should be meaningfully engaged in the assessment process and use of the assessment evidence to enhance their learning. Q 5 Reflection: Classroom assessment practices should be monitored and revised to improve their overall quality.		

Readability

Readability is defined as the appropriate reading level in which a document can be read and comprehended (Paige, Rasinski, Magpuri-Lavell, & Smith, 2014). *Readability* is determined by the Flesch–Kincaid readability tests found in most word processing systems. Pre-service teachers make sure the materials, including *Objectives/Targets*, they use with students are written at the appropriate reading level for the context of students identified in the *Context, Student Demographics* section that they are teaching. Ensuring *Readability* takes time. Pre-service teachers review the materials they will use with students to determine the *Readability*. If the *Readability* is above or below the students' reading level the pre-service teachers rewrite the documents to be at the appropriate reading levels. In the beginning of the semester pre-service teachers need a couple of rewrites to reach students reading levels. After a few weeks of our course these pre-service teachers take less time rewriting for readability because their skills to discern readability improve. Students need to able to read and comprehend the text therefore *Readability* is crucial for student success to meet the learning objectives/targets.

Enrichments/Correctives or Move On

In the *Enrichments/Correctives or Move On* section pre-service teachers address patterns and trends for planning the next lesson based on the evaluation of student learning of this lesson's objectives/targets. Pre-service teachers use the analysis of student work from the *Criteria for Met or Not Met Objectives/Target* section to place students into one of the three categories for this section based on the analysis of assessment data. The three categories are the same as the title of this section, enrichments, correctives or move on. The intent of this section, *Enrichments/Correctives or Move On,* is for the pre-service teachers to see "what matters most with formative assessments is how students and teachers use the results" (Guskey, 2008). They evaluate the *Instruction* used to teach the lesson related to student performance on each *Objective/Target*. Pre-service teachers develop different instruction for corrective activities that re-teaching students who did not meet the learning objective(s)/target(s). They create enrichment activities with different instruction to extend learning for students who did meet the learning objective(s)/target(s). If each student met the objective/target students are placed in the move on category. The pre-service teacher will then move on to the next instructional sequence without correctives for re-teaching or enrichments for learning extensions. The definitions and use of correctives and enrichments that are the basis for this section come from Thomas R. Guskey's book, *Implementing Mastery Learning* (1997).

Person by Item Analysis

The *Person by Item Analysis* is used as a way to discern content learned or not learned based on objectives met or not met. We use the *Person by Item Analysis* (Kifer& Orthober, 2007) with end of unit assessment data or with several formative assessments given over many days within a unit of study. There is a blank *Person by Item Analysis* model and example provided on the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #3*. The pre-service teachers create an Excel spreadsheet of student names, assessment items and assessment scores. Within the spreadsheet the rows are the students, the columns are items and the elements are student assessment scores. Each student's average score is the last cell of each row. The averages demonstrate the students who have met or not met the learning objectives. High averages are interpreted as objectives met. Low averages are objectives not met. Each assessment item has an average score in the last cell of each column. The assessment item average is interpreted as learning objectives that the entire class has met or not met. The higher the average the more the class as an entire group met the objective. Items with low averages demonstrate objectives not met by the class as a group. When using the *Person by Item Analysis* with formative assessments throughout a unit or for a formative end of unit assessment the pre-service teachers use these data to determine which objectives need to be re-

taught and which students need to be re-taught. The pre-service teacher copies the Excel file and pastes the Excel file into the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #3* document. The *Person by Item Analysis* can also be used with a summative assessment if the pre-service teacher is to analyze the summative assessment data. When I teach pre-service teachers to develop a *Person by Item Analysis* in Excel earlier in the semester they tend to get overwhelmed and do not enjoy creating *Person by Item Analysis* in Excel. Pre-service teachers have completed several analyses of student learning by this point in the semester. They ascertain the interpretive value of the *Person by Item Analysis* later in the semester rather than early in the semester. The pre-service teachers seem to like the *Person by Item Analysis* better for larger numbers of assessment item so teaching of the *Person by Item Analysis* later in the semester connects well with discussing end of unit assessments. The *Person by Item Analysis* shows the pre-service teachers it is better to follow these three steps, one, give a formative end of unit assessment, two, have a day of correctives and enrichments then three, re-assess relevant sections of the end of unit assessment for a summative assessment rather than have a review day then give the end of unit summative assessment. There is value in using instructional time to actually re-teach objectives students have not yet mastered as just described rather than use an instructional class session as an end of unit review day over content for an entire unit of study (Guskey, 1997).

Feedback/Grading/Communication

The *Grading* section of this *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #3*incorporates several aspects of grading. Pre-service teachers design and give end of unit assessments and make sure the end of unit assessments align each assessment item to unit objectives/targets, and meet the other criteria pre-service teachers have engaged with for the *Feedback CIA=E#1* and *#2*. They develop a standards-based grade report for their end of unit assessments. Another aspect conducted in class is theoretically grading. Pre-service teachers use their end of unit student assessment data to consider grade with different grading systems (Waugh & Gronlund, 2013; Brookhart, 2008).

Feedback, Reporting & Communication

For the *Feedback, Reporting & Communication* section each pre-service teacher, constructs a clear and detailed plan to communicate learning results to students, parents/caregivers, and colleagues. They provide specific examples of formative assessment data that guided the instruction of the unit. They clearly describe opportunities for student self-reflection. They give students, parents/guardians and colleagues standards-based grade reports for each student for a unit of study and/or for several lessons.

Product, Process and Progress

Before the Classroom Assessment Standards were adopted into Educational Measurement product grading was conducted. Product grading "relates to students' specific achievements or levels of performance. They describe what students know and are able to do at a particular point in time" (Guskey, 2001). Before the Classroom Assessment Standards were adopted pre-service teachers would complete an assignment and I would grade it and return the assignment. Now that I have the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #1, #2 and #3*and *Feedback CIA=E#1, #2* and *#3* system process and progress feedback and grades are provided (Guskey, 2001).

Feedback is provided for progress towards meeting each Classroom Assessment Standards from peers, self -evaluation and me. Peer and self –evaluations are conducted during class time and are an artifact created during the Learning Community meeting. I provide feedback for work on the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #1, #2* and *#3*over email each week for each pre-service teacher. Pre-service teachers are allowed to redo work after a correctives activity and they

can earn points that they missed back. "Teachers who develop useful assessments, provide corrective instruction, and give students second chances to demonstrate success can improve their instruction and help students learn" (Guskey, 2003). Students learn best when allowed multiple experiences to master each of the Classroom Assessment Standards and redos are a vital component of the learning process. Attention is paid to pre-service teachers' ability to apply the feedback given by peers and the course instructor into each subsequent week's work on the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #1, #2* and *#3s*. Pre-service teachers who seem to struggle to apply the feedback often improve their work after a one on one meeting with the course instructor. It may be that the pre-service teachers who struggle to implement the feedback need a corrective activity and one on one time serves as one type of corrective activity.

Over the semester with multiple measures of the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #1, #2 and #3* pre-service teachers earn progress grades that demonstrate that they have met the Classroom Assessment Standards. "Teachers who use progress criteria typically look at how far students have come" (Guskey, 2001). Progress grades are about educational growth (Guskey, 2001). Pre-service teachers turn in multiple measures of similar content (Brookhart, 2009). They turn in multiple measures so that their grades growth to meet the Classroom Assessment Standards. The repetitive nature of the content and skills needed to complete the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning #1, #2* and *#3* cultivate teacher habits. These habits are developing as these pre-service teachers are learning to write formal lesson plans for teaching observations. These pre-service teachers demonstrate much progress to meet each Classroom Assessment Standard.

Conclusion

The Classroom Assessment Standards are the framework for the *Curriculum, Instruction and Assessment Equals Evaluation of Student Learning s#1, #2* and *#3* for this semester long undergraduate course titled, Educational Measurement. Pre-service teachers in the course are immersed in schools for field work. The Classroom Assessment Standards invitation to "use the standards to inform the development of courses for pre-service educators in the area of assessment" has been utilized in this course. The Classroom Assessment Standards have made a difference in developing the assessment skills of these pre-service teachers. They incorporate evaluation of student learning into their lesson planning.

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