Impact on Student Learning - Science Rubric

Overview: This Impact on Student Learning (ISL) - Science rubric was developed by a Rubric Writing Team made up of faculty representatives across programs (i.e., early childhood, elementary, middle, secondary, K-12 specialities, special education), who regularly supervise students in Field Experience settings. Each ISL assignment is unique to the individual programmatic requirements, however, as common assessment artifacts, all are intended to assist the teacher candidate in designing evidence-based instructional strategies, developing methods for evaluating student progress, and basing instructional decisions on assessment data.

One example of this ISL assignment is during the Early Field Experience or "Blocking," where candidates are assigned the task of designing a standard-based instructional unit. This rubric is used over the course of the Early Field Experience to guide the candidates' efforts. This process scaffolds the experience for the teacher candidates who work with the faculty to iteratively develop the skills necessary to successfully complete the assignment independently during Student Teaching the following semester. In addition, the Early Field Experience culminates with a summative assessment on the teacher candidates' performance on the ISL project, which in turn informs their independent work in the Student Teaching.

During student teaching, the student teachers work independently under the supervision of the Cooperating Teacher on a separate ISL assignment. University Supervisors then assess the student teachers' skills using the ISL rubric, which incorporates 8 evaluation categories based upon and tagged with InTASC standards as well as the respective Specialized Professional Associations (SPA) standards when applicable. The results of this assessment are shared with the student teachers to inform their practice and to foster a culture of continuous improvement. Ultimately, this process empowers the student teachers to make data-informed decisions related to instruction and assessment. You should also enter **one Impact on Student Learning Assignment from student teaching**.

Ratings and Basis for Judgement: The rubrics differentiate between four levels of performance – *unsatisfactory, emerging, satisfactory, and proficient*. The performance indicators are based upon criteria and language found in the InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0 (2013).[1] This release stipulates that the InTASC standards no longer apply to only "beginning" teachers, but are instead intended as "professional practice standards" (p. 6). Therefore, these standards and the associated learning progressions describe a teacher's professional development throughout his or her career. We would not expect to see a large number of proficient ratings in early field experience. Rather, we, and our respective accrediting agencies and SPAs, would expect to see development across experiences with students earning more "emerging" ratings in earlier phases and progressing toward "satisfactory" or "proficient" in later phases. Furthermore, these ratings are based upon expectations for student teachers who are still in our programs and not for classroom teachers who have experience. Based upon this understanding, a Satisfactory rating is relatively high and one that most of our student teachers are expected to achieve by the completion of their student teaching. Ratings of Proficient should only be awarded to the few students who can consistently and independently demonstrate exemplary classroom performance per the rubric evaluation categories.

The rating levels *DO NOT translate into A – F grades.* Instead, the rubrics are designed to generate data that will reveal patterns of student performance at various stages of development across the learning progressions. These data are intended to guide our continual improvement of our preparation of teachers. All candidates perform differently. However, it is expected that on most indicators, those in *early field experience would typically be rated at the Emerging level with student teachers eventually progressing to the Satisfactory level by the close of their student*

[1] http://www.ccsso.org/Documents/2013/2013_INTASC_Learning_Progressions_for_Teachers.pdf

teaching experience. To reiterate, ratings of Proficient should only be awarded for exemplary performance.

This project is designed to assist the student teacher in developing methods for evaluating student progress and base instructional decisions on assessment data. The list below contains items to be included in your project design.

The following list provides an overview of the ISL assignment requirements(based on InTASC standards).

Candidates must:

- Implement an assessment of one child, a small group, or a class;
- Describe the setting and child/students;
- List learning goals or measurable objectives – tie to SOL or IEP/IFSP;
- Decide on instructional approach OR content to teach based on data (6c, 6g, 7d & 7j);
- Develop detailed lesson plan(s) or unit plans that include goals for all learners (if working with a group)(7c & 7d);
- Apply evidence-based practice in teaching;
- Administer pre-test (take baseline) and post-test(6a, 6b & 7j);
- Differentiate instruction and ways of demonstrating learning(7c & 7l);
- Conduct analysis of data (e.g. item analysis, data collection over time, pre- and post-test comparison, graphing of data)(6c or 6g);
- Conduct and document results of formative assessments (even if qualitative) as well as how these assessments influenced instructional decisions(6a, 6d, 6g);
- Summarize child/children's performance and RU teaching candidate's impact on children's learning and lessons learned by RU teaching candidate;
- Interpret results and discuss and reflect on changes needed;
- Cite research evidence that informed decisions made in this project (CAEP 1.2).[2]

Validity and Reliability: This instrument was designed by the Rubric Writing Team, which was formed in Fall of 2014 to develop key assessments to be used across the teacher education programs, as required by our accrediting body, the Council for Accreditation of Educator Preparation (CAEP). This team consists of an interdisciplinary team of six faculty members within the School of Teacher Education and Leadership (STEL), and three A&P Faculty members in the Dean's Office. The Rubric Writing Team conducted exercises to establish validity and inter-rater reliability on all the instruments designed during this process. During the 2015-2016 Academic Year, these instruments were piloted. During the 2016-2017 Academic Year, the Lawshe method will be used to establish content validity and internal consistency reliability (e.g., Cronbach's alpha) analyses will be used to determine the reliability coefficient for each instrument. The results of this intended analysis and data will be used to inform revisions and administration of the instruments in the 2017-2018 Academic Year. The validity and reliability processes will be guided by the CAEP Instrument Rubric[3] and the CAEP Evidence Guide.

[2] http://caepnet.org/~/media/Files/caep/standards/commrpt.pdf?la=en

[3] http://caepnet.org/~/media/Files/caep/accreditation-resources/caep-assessment-rubric-june2016.pdf?la=en

	Unsatisfactory	Emerging	Satisfactory	Proficient
	The candidate…			
Description of Setting/students (InTASC 1a; 1b)	provides **incomplete** information about the demographic make-up of the **class and/or setting.**	provides **demographic information** about student(s), (e.g., grade level or subject area, gender, race, class) and a description of the classroom.	***and…***provides **academic information** about the students (i.e., exceptionalities, repeaters, ESL) and available resources within the classroom to support them.	***and…***also **includes** information about the students' backgrounds, interests, and prior knowledge.
Learning Goals/Measurable Objectives (InTASC 7a; NSTA 2a,b,c; 3a,b; 5a,b)	provides **insufficient** information about the learning.	provides learning **goal(s)** or **objective(s)**	***and…*** the learning goal(s) or objective(s) is/are **specific and observable** and is/are based on the Standards Of Learning..	***and…***are **differentiated** for different types of learners and ability levels.
Lesson/Unit Plan (InTASC 7b; NSTA 1c; 2a, c; 3a,b; 4a, b, c; 5a,b)	submits an **incomplete** lesson plan.	submits a lesson plan that includes **all** required components. Instructional sequence is adequate. There is some building of ideas but it is not consistent.	***and…***includes a **variety** of instructional strategies. However, strategies utilized "teach to the middle."	***and…*** utilizes a **variety of effective and engaging student-centered strategies** to meet diverse learner need.
Assessment Tool(s) (i.e., Pre/post, performance- based, or other baseline/summative measure) (InTASC 6a; 6g; NSTA 2c; 3c; 5a)	assessment plan is either **not present or does not completely** cover learning objectives.	provides an assessment or other baseline measure that **addresses** the learning objectives.	***and…***the format is **developmentally- and content-appropriate**; has appropriate level of challenge.	***and…***assesses learning goal(s) in multiple ways; is **differentiated** for diverse learners.
Presentation and Interpretation of Baseline data (InTASC 9c; NSTA 1c; 2c; 3a,c; 5a,b, c)	baseline data and their interpretation are **incomplete or not clear.**	results of baseline data are **presented in a chart, table, or graphic organizer.**	***and…*** includes a **written summary** of the results with references to specific patterns in the data to **evidence students' understanding** (or lack thereof) of the learning goals/objectives.	***and…*** **identifies common strengths and weaknesses** among students; references students' prior knowledge in the discussion of perceived student strengths and weaknesses.
Data informed decision making (i.e., how does the data affect your instructional decisions?) (InTASC 7d; NSTA 2c; 3c; 5a,b)	describes instructional steps **without** evidence of data-based decision making.	provides evidence that the baseline data **influences** the chosen instructional strategies utilized in the unit.	***and…*** uses the data to address **students' strengths and weaknesses.**	***and…*** considers students' **backgrounds, interests, and prior knowledge** in selection of instructional strategies.
Research evidence that informed decisions (InTASC 10h)	describes instructional decisions **without** reasoning for these decisions.	provides **indirect references** to "research" or "best practices."	cites **specific research or theories.**	***and…***uses the research to provide a rationale for instructional strategies.
Final Reflection – respond to post assessment	presents **incomplete or unclear**	post-assessment results are **presented in a**	***and…*** includes a **written analysis** of the results, **including** a **comparison**	***and…*** includes a **discussion** of student **work and performance** on daily formative assessments;

(i.e., discussion of the candidate's impact on student learning—use data to explain final results) (InTASC 7d; NSTA 1c; 2c; 3a)	post-assessment results.	**chart, table, or graphic organizer**.	**of the post-assessment data to baseline data;** identifies students' areas of strength and weakness as well as areas of growth.	**uses multiple data points to document and evidence** students' attainment of the learning goals. **also** includes a **self-critique** regarding impact on student learning that acknowledges both **successes and shortcomings in one's teaching.**