Wisconsin Student Learning Objective

After reviewing available data and identifying the student population for whom the SLO will apply based on the needs identified by trends and patterns in the data, create a Student/School Learning Objective. Submit the SLO Plan to your evaluator prior to the Planning Session.

Subject Area/Grade Level

Biology/High School

Baseline Data and Rationale: (*What sources of data did you examine in selecting your SLO? What issues related to student equity can be seen through the data review? Summarize trends and patterns from your data review. If this is the same SLO as you submitted last year/semester/interval, please provide justification for why you are repeating your goal. Did you consider both qualitative and quantitative data?*)

The ACT Aspire will be the statewide test given to sophomores in Wisconsin beginning in the 2014 school year. The ACT Science College and Career Readiness Standards for Science list IOD (Interpretation of Data) as accounting for 38% of the ACT Aspire in Science, I have found through experience with science students in 9th grade Biology courses in past years that, while their ability to produce graphs is often at an appropriate level, analyzing data from tables and graphs is a skill in the developmental stage. Therefore, because of the need to improve students' skills and abilities in the area of interpretation of data and to prepare students for the IOD section of the ACT Aspire, this SLO will focus on the skills and knowledge required to interpret and analyze data presented in tables and graphical forms. I administered a teacher-generated baseline Graphing Evaluation and Skills Assessment (an evaluation tool generated by the High School Biology staff) to students in all of my Biology classes. The SLO will be based on my 6th hour class as it represents what appears to be a normal skills distribution for this initial use of the assessment. The following score ranges are based out of a possible score of 20 correct answers. Each successive range is given a level title (Minimal, Basic, Proficient, Mastery)
5 students scored in the 0-5 range (Minimal)
12 students scored in the 6-10 range (Basic)
8 students scored in the 11-15 range (Proficient)
1 student scored in the 16-20 range. (Mastery)

Learning Content and Grade Level: (*Which content standards are relevant to/related to/in support of your goal? Is this content reinforced throughout the interval of this goal? Did you identify the national, state, or local standards relevant to your role in the district?*)

NGSS Science and Engineering Practices Analyzing and Interpreting Data Obtaining, Evaluating and Communicating Information ACT Science College and Career Readiness Standards for Science
IOD 301 Select two or more pieces of data from a simple data presentation
IOD 304 Determine how the values of variables change as the value of another variable changes in a simple data presentation
IOD 401 Select data from a complex data presentation
IOD 402 Compare or combine data from a simple data presentation
IOD 403 Translate information into a table, graph, or diagram
IOD 404 Perform a simple interpolation or a simple extrapolation using data in a table or graph

Student Population: (*Which students are included in the target population? How does the data analysis support the identified student population?*)

Students in my 6th hour Biology class. This class represents what appears to be a typical skills distribution upon the initial trial of this assessment. Refer to Baseline Data and Rationale for corresponding data analysis.

Targeted Growth: (*Have you identified the starting point for each target student? How did you arrive at these growth goals?*)

With this being the initial using the teacher-generated Graphing Evaluation Skills Assessment, I am not sure what the baseline growth may be during the school year. Based on my prior experience with student achievement in this area, I am using an expectation that 80% of my students across all levels reach the tiered goals as stated below: Note--scores for each level can be found in the Baseline Data and Rationale section.
Students at Minimal will increase to Proficient.
Students at Basic will increase to Proficient.
Students at Proficient will increase to Mastery.
Students at Mastery will maintain their current level.

Interval: (*Does the goal apply to the duration of the time you spend with your student population (ex. Year, Semester, Trimester, etc.)?*)

September, 2014 through May, 2015

Evidence Sources: *(What benchmark assessments will you use (pre-instruction, mid-interval, post-instruction)? What formative practices will you use to monitor progress throughout the interval? What summative assessment will you use to determine student growth at the end of the interval? Is the assessment: Aligned to the instructional content within the SLO? Free of bias? Appropriate for the identified student population?)*

The baseline assessment, mid-interval, and post-assessment will be measured using the Graphing Evaluation Skills Assessment. This assessment will evaluate the same skills each time, using a different form of the same assessment in order to allow for valid assessment of the skills. A copy of the Graphing Evaluation Skills Assessment can be found in the Artifacts section. There will also be formative graphing evaluations given during the duration of the course. Additionally, laboratory activities, graphing activities, and discussion will be used to assess student progression toward their individual goals.

SLO Goal Statement: (*Specific, Measureable, Attainable, Results-based, and Time-bound*)

By May, 2015, 80% of my 6th hour Biology students will improve in their ability to interpret and analyze data presented in tables and graphical forms according to their tiered goals as measured by the Graphing Evaluation Skills Assessment.

Instructional Strategies and Support: *(What professional development opportunities support this goal? What instructional/leadership methods will you employ so that students progress toward the identified growth goal? How will you differentiate instruction to support multiple growth goals within your population? Who might you collaborate with in order to support the unique learning needs within your group?)*

Classroom instruction
PLC generated materials ranging from formative and summative assessment tools to classroom labs and other activities
Mastery Learning Model (including 70% level demonstration of content and skill expertise on unit post tests) as used in the Biology department
Golden Tickets (remediation/re-teaching documents)
Use of Resource for extension of classroom activities.