Instructions for Using the Michigan Department of Education SLO Student Growth Measurement Tool

This student learning objective (SLO) student growth measurement tool is designed to help teachers write and measure student growth goals when using locally developed summative assessments and externally developed assessments for local school/district data that do not provide student growth measurement criteria. The tool assumes that the teacher is using a pre-course assessment and a post-course assessment that are designed to measure student growth on the most essential standards and elements that define student success within the class. This measurement tool is not designed for any specific assessments, and if assessments are currently in use for education evaluations that provide evidence-based guidance and criteria for the use of education evaluation, this tool is not intended to replace that guidance and criteria.

This measurement tool is designed to help use trend data (when previous year assessment exists) for locally developed assessments and/or for assessments where no guidance is provided on the setting of course-long student growth goals and objectives. Teachers and administrators may choose between models that will provide goals based the score changes that students have made in previous years who have scored at differing percentile ranges on their pre-test score. In this way, the tool is designed to provide differentiated goal setting based on the performance level of students on their pre-test scores. Educators will have the option of choosing a model that will provide an expectation to match previous year(s) score improvement, or to set a goal for the improvement of previous score changes by a percentage of their choosing. This tool may also be used when no trend data exists, and in those cases teachers may choose between selecting a pre-determined proficiency score, calculating the effect size of the growth of the class between the pre-test and post-test summary tests, or selecting a goal based on the variability in scoring of the pre-test assessments and educated estimations of growth potential for their students. The tool also provides a way for educator to use their knowledge of students to override the calculated score growth improvement goals by using best judgement to select a different score. We know that life can be unpredictable, and human factors can effect score projections for good and bad,

and while the use of this override feature should be the exception rather than the rule, it should be acknowledged that unexpected factors should be anticipated. This student growth measurement tool also provides the opportunity to set a second SLO goal that will factor into the overall student growth rating (1-4) score. The weight of the second SLO goal to the overall student growth rating score is dependent on the number of students included in the second SLO. Teachers may manually select students for the second SLO, or select the students based on a pre-set determination based on their pre-test scores (example: students scoring below the 25th percentile).
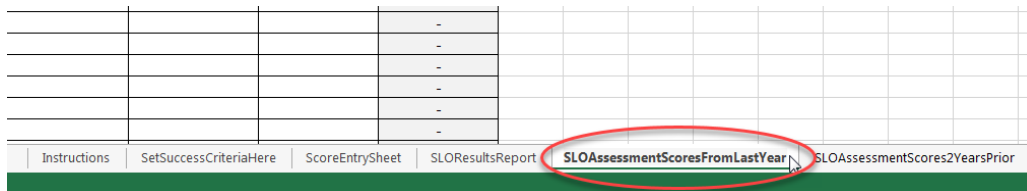
The use of this tool assumes that the educator is using or will use summative assessments that are designed to measure student growth by assessing the most essential learning targets required for student success within the course of a class or set of classes. If no summative assessment has been agreed upon within an SLO process for measuring student growth is being currently used for this purpose, the first step in this process would be determine or develop a summative assessment that is agreed upon through the SLO process to define growth and success within your given grade(s) and subject area(s). It may be possible to write an SLO that aggregates multiple summative assessments to determine a combined score to measure student growth. One way that that this tool could be used for that purpose is use this tool to calculate the 1-4 rating of each assessment and combine those ratings based on an average, weighted average, or another method for score aggregation. For more information on writing SLO goals and the selection of summative assessments for education evaluations, please refer to the Michigan Department of Education guide for the use and implementation of student learning objectives (SLOs): https://www.michigan.gov/-/media/Project/Websites/mde/educator_services/eval/implementation_of_slo_guidance.pdf?rev=8efd95e98c71412ea0c9c58b5e215c5e

Step-by-step instructions for using the SLO student growth measurement tool are below:

Step 1: Determine whether local prior year data exists for the summative assessment that you are using for your SLO. If no prior year data exists, please skip to step **6**. If prior year(s) data does exists, continue to step 2.
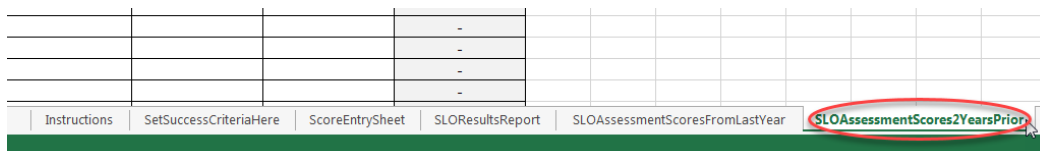
Step 2: Click on the tab at the bottom titled *SLOAssessmentScoresFromLastYear*.

Step 3: Type or copy and paste student names, pre-test scores from the summative assessment, and post-test scores from the summative assessment from last year in to the corresponding spaces. The change in scores column will automatically calculate. The names are not required for the data analysis. If you have data from two years prior, go to step 4, if not go to step 6.

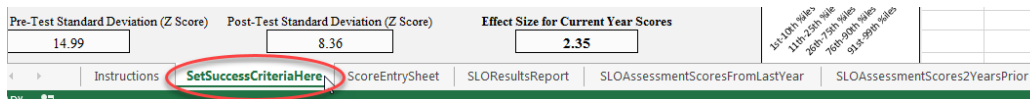**Step 4:** Click on the tab at the bottom titled *SLOAssessmentScores2YearsPrior*.

Step 5: Type or copy and paste student names, pre-test scores from the summative assessment, and post-test scores from the summative assessment from two years ago in to the corresponding spaces. The change in scores column will automatically calculate. The names are not required for the data analysis.

WARNING: You must enter at least 13 set of pre-test and post-test scores for the growth score ranges to calculate for all of the percentile ranges. If you have less than 13 pre-test and 13 post-test scores, you may get error messages on your ScoreEntrySheet.

Step 6: Click on the tab at the bottom titled *SetSuccessCriteriaHere*.

Step 7: Choose the model that you would like to select for your first SLO by clicking the pull down menu in the white space under *First SLO Goal Success Criteria (All Students).* If you have entered data from assessments from the prior years or prior two years, you may want to select the models titled:

- Meeting the Prior Score Change Averages of Pre-Test Percentile Ranges (Equaling the Same Success as Prior Years)

- Exceeding the Prior Score Change Averages of Pre-Test Percentile Ranges by a Set Improvement Percentage or

- Simple Average Growth From Prior Years Expected for All Students

If you do not have prior assessment score data, you may want to select the models titled:

- Proficiency Score Expected for All Students

- Group Effect Size Score

- Tiered Growth Projections Based on Range of Current Year Pre-Test Scores

Each model has inherent advantages and disadvantages. The first two models (Meeting or exceeding prior score change averages) should provide more accurate score growth target projections and a mechanism for differentiating score growth based on pre-test scores, but requires prior year summative assessment scores. The proficiency score expected will require you to set a score that all students are expected to achieve at the end-of-year summative assessment. The Group Effect Size Score will calculate an effect size based on the current year pre-test and the post-test scores. The current year effect size (if this model is selected) will be compared against three possible effect size research suggested criteria models (Hattie, Cohen, or Isaac and Michael) to determine the rating score of the first SLO. Finally, the tiered growth projections based on range

of current year pre-test scores will provide the teacher or administrator the ability to select the growth score expectations using a measure of variability (standard deviations) within the current year pre-test scores. You may also adjust the percentage of students who are required to meet their growth targets to determine the student growth ratings of Exceeded (4), Met (3), Nearly Met (2), or Not Met (1). A discussion of any changes to this criteria with your supervising administrator is suggested.

Step 8: If you have a second SLO goal or you would like to develop a second SLO goal, you may select the pull down menu underneath Second SLO Goal Success Criteria (Optional Targeted). You may choose to target a group based on the percentiles of the pre-test score (example: students who have scored at the 25th percentile or under on the pre-test score), or individually select the students by indicating which students should be targeted for the second SLO on the score entry sheet. To select the students based on pre-test scores, select *Group Targeted Using Pre-Test Percentile Range*. To manually select the students you would like to target for your second SLO group, select *Individually Select Targeted Group Where Scores Are Entered*.

Step 9: Input first SLO goal success criteria. Go to step 10 if you have selected the Meeting the Prior Score Change Averages of Pre-Test Percentile Ranges or Simple Average Growth From Prior Years Expected for All Students models, because no additional score improvement criteria will be required. Only one of the following score improvement criteria will need to be set. The growth and/or score criteria adjustment opportunities for the corresponding models are:

- Exceeding the Prior Score Change Averages of Pre-Test Percentile Ranges by a Set Improvement Percentage

o   Enter the percentage of score improvement from prior year(s) scores by pulling down selecting a percentage under 1st SLO % of Change (example: Selecting 105% will increase the scores for all students in all of the performance bins by 1.05 times the scores for similarly scoring students last year. So students in the 50th percentile who averaged a score of 100 in prior years would be expected to score 105 this year).

First SLO Goal Success Criteria (All Students)
Exceeding the Prior Score Change Averages of Pre-Test
Percentile Ranges by a Set Improvement Percentage

	1st SLO % of Change			
	105%	▼		
	100%			
	101%			
Minimum Percent	102%		**Exceeded**	
to Meet or Exceed	103%		90%	
	104%			
	105%			
	106%			
Assessment f	107%	▼	Assessment from	

- Proficiency Score Expected for All Students
  o   Enter the score that you expect all students to attain to meet their SLO goal.

First SLO Goal Success Criteria (All Students)
Proficiency Score Expected for All Students

Proficiency Score	
80	

Minimum Percent of Students Required	**Exceeded**
to Meet or Exceed Growth Targets	90%

- Group Effect Size Score

  o   Select the effect size model that you would like to use for current year score change effect size comparison underneath the words *Effect Size Model*. Notice that the selection of the model will result in the effect size needed for the Exceeded, Met, and Nearly Met ranges.

	A	B	C	D	E	F
1	**Setting of SLO Success Criteria**				**Effect Size Model**	
2	First SLO Goal Success Criteria (All Students)				Hattie ▼	nd SLO Goal Suc
3		Group Effect Size Score			Hattie	
4					Cohen	
					Isaac and Michael	
5			**Effect Size-Exceeded**	**Effect Size-Met**	**Effect Size-Nearly Met**	
6			0.7	0.4	0.2	
7						

- Tiered Growth Projections Based on Range of Current Year Pre-Test Scores

  o   Chose the criteria for growth scores for the students scoring at the 1st-25th, 26th-75th, and 76th-99th percentiles on the pre-test score by selecting the standard deviation multiplier under section titled *If No Trend Data Available-Tiered Growth Projections*

Criteria Settings for Current Year Data. You may want to revisit the resulting score changes after the current year scores have been entered to verify that the projected score changes make sense based on your knowledge of the students and assessment.

- Group Targeted Using Pre-Test Percentile Range

  o Select the percentile range from the current year pre-test that you would like to target for the 2nd SLO.

  o Enter the percentage of score improvement from prior year(s) scores by pulling down selecting a percentage under 2nd SLO % of Change (example: Selecting 105% will increase the scores for all students in all of the performance bins by 1.05 times the scores for similarly scoring students last year. So students in the 50th percentile who averaged a score of 100 in prior years would be expected to score 105 this year).

NOTE: If you have selected a second SLO success criteria other than "None" and have selected either Proficiency Score Expected for All Students or Group Effect Size Score, a field will appear that will allow you to input a growth target score for the students within the 2nd SLO to achieve.

Step 10: Click on the tab at the bottom titled *ScoreEntrySheet*.

		-		-		Need Post-Test Score	-	Not Part of 2nd SLO
		-		-		Need Post-Test Score	-	Not Part of 2nd SLO
		-		-		Need Post-Test Score	-	Not Part of 2nd SLO
		-		-		Need Post-Test Score	-	Not Part of 2nd SLO

Instructions | SetSuccessCriteriaHere | **ScoreEntrySheet** | SLOResultsReport | SLOAssessmentScoresFromLastYear | SLOAssessmentScores2YearsPrior

Step 11: Type in the teacher (or administrator's) name, subject areas that will be included in the SLOs, and grades for student that will be included within the SLOs.

C2   fx   Michael Jones

	A	B	C	D	E	F	G	H	I	J	K/
1	**SLO Current Year Data Entry**										
2		Teacher Name:	Michael Jones			Subject(s):	Social Studies and Science		Grade(s):	9-10	
3		**Student Name**	**Enter Pre-test Scores**	**Success Criteria Determined Score Growth Expectation**	**Optional Individualized Score Growth *Overrides Criteria Score***	**Expected Post-Test Score**	**Enter Post-Test Scores Here**	**1st SLO Met?**	**Expected 2nd SLO Post-Test Score**	**2nd SLO Met? (Optional Targeted)**	
4		Jane Smith	25	39.40		64.40	78	Objective Met	-	Not Part of 2nd SLO	

Step 12: Type in the maximum score that a student would be able to achieve on the summative assessment used for the pre-test and post-test assessment. This will prevent students who have very high pre-test scores from receiving an expected post-test score that is impossible to achieve.

D	E	F	G	H
Entry		100	<--Maximum Score Possible on Sun	
eacher		Subject(s):	Science and Social Studies	
Success	**Optional**		**Enter**	

Step 13: Type in or copy and paste the pre-test summative assessment scores under the heading *Enter Pre-test Scores*.

SLO Current Year Data Entry

Student Name	Enter Pre-test Scores	Success Criteria Determined Score Growth Expectation	Optional Individualized Score Growth *Overrides Criteria Score*	Expected Post-Test Score	Enter Post-Test Scores Here
Jane Smith	25	29.99		54.99	78
John Doe	20	29.99		49.99	72
Peter Parker	57	7.50		64.50	52
John Wayne	60	7.50		67.50	82
Madonna Jones	50	14.99		64.99	92
Gwen Zena	61	7.50		68.50	77
John Peabody	28	29.99		57.99	69
Student 8	60	7.50		67.50	79
Student 9	68	7.50		75.50	82
Student 10	45	14.99		59.99	79
Student 11	32	29.99		61.99	80
Student 12	50	14.99		64.99	77
Student 13		7.50		64.50	84

Step 14: Type in or copy and paste the post-test summative assessment scores under the heading *Enter Post-Test Scores Here*.

SLO Current Year Data Entry

Student Name	Enter Pre-test Scores	Success Criteria Determined Score Growth Expectation	Optional Individualized Score Growth *Overrides Criteria Score*	Expected Post-Test Score	Enter Post-Test Scores Here	1st SLO
Jane Smith	25	29.99		54.99	78	Objectiv
John Doe	20	29.99		49.99	72	Objectiv
Peter Parker	57	7.50		64.50	52	Objective
John Wayne	60	7.50		67.50	82	Objectiv
Madonna Jones	50	14.99		64.99	92	Objectiv
Gwen Zena	61	7.50		68.50	77	Objectiv
John Peabody	28	29.99		57.99	69	Objectiv
Student 8	60	7.50		67.50	79	Objectiv
Student 9	68	7.50		75.50	82	Objectiv
Student 10	45	14.99		59.99	79	Objectiv
Student 11	32	29.99		61.99	80	Objectiv
Student 12	50	14.99		64.99	77	Objectiv

Step 15: You may optionally enter individualized growth scores for students that will override the automatically generated growth scores. A discussion with the evaluating administrator about the reasons for using the override so that there is common understanding of why the score override was used that provides exception to the pre-determined student growth criteria.

SLO Current Year Data Entry

Student Name	Enter Pre-test Scores	Success Criteria Determined Score Growth Expectation	Optional Individualized Score Growth *Overrides Criteria Score*	Expected Post-Test Score	Enter Post-Test Scores Here	1st SLO Met?
Jane Smith	25	29.99		54.99	78	Objective Met
John Doe	20	29.99	20	40.00	72	Objective Met
Peter Parker	57	7.50		64.50	52	Objective Not Met
John Wayne	60	7.50		67.50	82	Objective Met
Madonna Jones	50	14.99		64.99	92	Objective Met
Gwen Zena	61	7.50		68.50	77	Objective Met
John Peabody	28	29.99		57.99	69	Objective Met
Student 8	60	7.50		67.50	79	Objective Met
Student 9	68	7.50		75.50	82	Objective Met
Student 10	45	14.99		59.99	79	Objective Met
Student 11	32	29.99		61.99	80	Objective Met
Student 12	50	14.99		64.99	77	Objective Met

Step 16: Click on the tab at the bottom titled *SLOResultsReport*.

Not Met - 1	Less than 65% of Students Meet or Exceed Growth Target.	4.00

Instructions | SetSuccessCriteriaHere | ScoreEntrySheet | **SLOResultsReport** | SLOAssessmentScoresFromLastYear | SLOAssessmentScores2YearsPrior

Step 17: Type in the name and/or short description of your SLO(s) in the space provided to the right of *Name of SLO (type short descriptor).* Review the data provided within the SLO Results Report and make sure that it is consistent with your student growth expectations.

Review the criteria on the SLO Results Report and resulting Overall SLO Score.