Columbus State University
College of Education Assessment Committee

Student Teaching
Documenting Student Performance Handbook

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Introduction

Columbus State University, College of Education has provided you many opportunities that will enable you to join the community of *highly qualified* teaching professionals. Congratulations! You have moved through all levels of Bloom's Taxonomy from understanding to evaluating student performance. During your capstone student teaching experience you will have an additional opportunity to focus on P-12 student achievement and to impact student learning, which is the core of effective teaching.

Purpose

This student teacher handbook is designed to provide a roadmap for *Documenting Student Learning*. This activity (Documenting Student Learning) will provide evidence that you can assess P-12 student performance, analyze the results of the assessment, and provide a plan for appropriate intervention.

Anticipation Guide

The following questions relate to assessing student performance. Write your answers in the space provided.

Questions	Student Teacher Responses
1. How do you know if you have been effective in your teaching?	
2. What have you learned about assessing student performance after instruction?	
3. How do you apply your knowledge of assessing student performance?	
4. Are process and objectivity more important than student gains?	
5. How do you know whether or not your assessment results are objective?	
6. How do you address deficiencies?	

Reflect on your answers as you continue reading.

Why Document Student Learning?

Documenting student learning addresses the Board of Regents Principle IIIA and demonstrates effective teaching practices in P-12 classroom settings.

> *"Teacher Candidates are accomplished in bringing P-12 students from diverse groups to high levels of learning and achievement at point of initial recommendation for certification."*
> (Board of Regents Principle: IIIA)

Measurable Student Learning Outcomes

Measuring student learning outcomes determines to what extent the teachers' objectives have been met. Student learning might include acquisition of skills, mastery of concepts, and growth in other life and educational areas; for example, can students retell text?

> Objectives must be clearly defined in measurable terms if student learning is to be determined.

Assessment of Student Learning Outcomes

Assessing student performance is an integral activity in the teaching and learning process. Assessment provides student teachers with data that will be used for improving their teaching practices and for guiding and motivating their students throughout the learning process.

> Assessment of student learning outcomes gives a degree of credibility that the student has acquired knowledge and skills taught.

Basic Steps for Assessing Student Learning Outcomes

1. Create written statements of measurable student learning outcomes which include standards for levels of performance.

   A **learning objective** is a statement of what students will be able to do when they have completed the lesson. The objective has three major components: 1) A description of what the student will be able to do; for example, students will be able to correctly underline verbs in a paragraph. 2) The conditions under which the students will perform the tasks; for example, after reviewing Chapter 5, they will be able to underline the verbs. 3) The criteria for evaluating students' performances; for example, the students will underline at least 10 verbs.

2. Select the assessment instrument. See Appendix A: Sample Pre- and Post-assessments.
3. Pre-assess the content of the lesson that will be taught.
4. Teach the lesson.
5. Post-assess the content of the lesson that was taught.
6. Complete the *Individual Student Achievement Data* form (Raw Scores). See Appendix C.
7. Complete the *Student Achievement Data* form (Average Percentage by Class). See Appendix D.

   Analyze Student Scores
   By Gender, Ethnicity, Socioeconomic Groups, Special Needs, and Language
   Assessment results determine what learning has occurred, to what extent, and by which students. The data collected in the *Learning Environment Profile* can be used as the basis for this analysis. See Student Teaching Handbook, Appendix D.

8. Conduct a test item analysis.

   A **test item analysis** is a powerful technique that student teachers will use to improve their teaching effectiveness. However, the test items to be analyzed must be valid; that is, student teachers must provide instruction that addresses each test item.

   Student teachers will use the *Test Item Analysis Worksheet* to compare percentages of pre- and posttest results to determine if all objectives were met. They will provide a plan to re-teach objectives not met. This will help student teachers diagnose both their instruction and student performance. See Appendix E.

9. Analyze and summarize student performance and report the results based on the *Test Item Analysis*. See Appendix E.
10. Use the results to design a plan for intervention, if needed. See Appendix E.

Conclusion

Assessment: A Critical Factor in Lesson Planning

Bringing P-12 students from diverse groups to high levels of learning and achievement is a complex process. The assessment component of lesson planning is critical because it provides necessary information that is essential in determining if students have met the learning outcomes. However, teachers should **never** focus on test scores as the end of the journey but as a stop along the way and a chance to review their roadmaps for direction.

Appendix A

Sample Pre- and Post-Assessments

Sample
Pre- and Post-Assessment

Historical Figures Pre-Test and Post-Test

Name_____Date_____

Read the question. Circle the letter that best completes the sentence.

1. A historical figure is
    a. someone who cooks food.
    b. someone who does not do anything.
    c. someone who did something great for our country.

2. Benjamin Franklin
    a. started our country's first library.
    b. was a slave.
    c. ate all the time.

3. Harriet Tubman
    a. discovered electricity.
    b. was an actress.
    c. became a leader on the Underground Railroad.

4. Lewis and Clark
    a. were explorers.
    b. were mean to each other.
    c. disliked cats.

5. George Washington Carver
    a. was a slave owner.
    b. discovered many things about plants and science.
    c. was never sick.

6. Theodore Roosevelt
    a. was a President of the United States.
    b. did not like people.
    c. was a slave.

7. Thomas Jefferson
    a. did not like education.
    b. was a slave owner.
    c. helped the Declaration of Independence.

8. Sacagawea
    a. was an actress.
    b. was a native American who helped Lewis and Clark.
    c. designed clothes.

Appendix B

Documenting Student Learning Form
Instructions to the Teacher Candidate

Columbus State University
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Documenting Student Learning

"Teacher Candidates are accomplished in bringing P-12 students from diverse groups to high levels of learning and achievement at point of initial recommendation for certification." (Board of Regents Principle: IIIA)

Teacher Candidate _____Date _____

School _____ Grade Level _____

Unit Title _____

Learning Objectives (Learning Outcomes) _____

_____

_____

Instructions to the Teacher Candidate

1. Design and administer an age/grade appropriate pre-assessment and a post-assessment based on expected learning objectives, analyze student scores to see what learning occurred, to what levels, by which students (analyze by gender, ethnicity, socioeconomic groups, special needs, and language). The data collected in the *Learning Environment Profile* can be used as the basis for this analysis. **Note: Use the same instrument for your pre- and post-assessment.**

2. Conduct a test item analysis, analyze and write a summary of the pre- and post-assessment results, and create a plan for intervention, if necessary.

If you choose to document student learning in alternate ways, the plans must be reviewed with your university supervisor before implementation. Remember to use students' initials when recording information.

In addition to this form, the university supervisors will collect the following forms and submit them to the Office of Student Advising and Field Experiences:

- Individual Student Achievement Data (Raw Scores)
- Student Achievement Data (Average Percentage by Class)
- Test Item Analysis, Summary, and Intervention Plan*

*The *intervention plan* must be signed by the cooperating teacher.

Appendix C
Documenting Student Learning Forms

Form
Individual Student Achievement Data (Raw Scores)

Sample Worksheet / Computations
Individual Student Achievement Data (Raw Scores)

College of Education
Individual Student Achievement Data (Raw Scores)

Teacher Candidate_____ Date _____

School _____Grade Level _____

Unit Title _____

Objectives _____

_____

Student Initials	Race/ Ethnicity	Gender	Students with Special Needs	Pre-Assessment Score* ---------- Sample has 8 test items	Post-Assessment Score* ---------- Sample has 8 test items	Gain/Loss
Example SMD	**Black**	**M**		**37.5% Student scored 3 items correct 3 ÷ 8 = .375 X 100 = 37.5%**	**87.5% Student scored 7 items correct 7 ÷ 8 = .875 X 100 = 87.5%**	**+50%**

*Report individual scores in percentages. Please use the following formula:

Percentage = (raw score ÷ number of questions) X 100

Individual Student Achievement Data
Sample Worksheet / Computations —Raw Scores

Student Initials N = 4 Test Items = 8	Race/ Ethnicity	Gender	Special Needs Students	Pre-Assessment Score*	Post-Assessment Score*	Gain/ Loss
1. RB	Asian	F		37.5% Student scored 3 items correct 3 ÷ 8 = .375 X 100 = 37.5%	87.5% Student scored 7 items correct 7 ÷ 8 = .875 X 100 = 87.5%	+50%
2. BR	White	M		37.5% Student scored 3 items correct 3 ÷ 8 = .375 X 100 = 37.5%	100%	+62.5%
3. RB1	Black	F		50% Student scored 4 items correct 4 ÷ 8 = .50 X 100 = 50%	100%	+50%
4. BR1	Black	M	Yes	50% Student scored 4 items correct 4 ÷ 8 = .50 X 100 = 50%	37.5% Student scored 3 items correct 3 ÷ 8 = .375 X 100 = 37.5%	-12.5%

***Report individual scores in percentages. Please use the following formula:**

Percentage = (raw score ÷ number of questions) X 100

Appendix D

Form
Student Achievement Data (Average Percentage by Class)

Sample Worksheet / Computations
Student Achievement Data (Average Percentage by Class)

Student Achievement Data Form
Average Percentage by Class

Teacher Candidate _____Date _____
School _____ Grade Level _____
Date_____ Unit Title _____
___

	Total Number of Students	Pre-Assessment* (Average Percentage)	Post-Assessment* (Average Percentage)	Average Percentage Gain/Loss
Total Class				
Gender				
Male				
Female				
Race/Ethnicity				
Asian				
Black				
Hispanic				
White				
Other				
Socio-Economic Status Lunch (Amount Paid)				
Full				
Reduced				
Free				
Students with Special Needs				
LD				
BD				
Gifted				
Other				
Language				
English				
ESOL				
Non-English				
Race/Ethnicity/Gender				
Asian Females				
Asian Males				
Black Females				
Black Males				
Hispanic Females				
Hispanic Males				
White Females				
White Males				
Other Females				
Other Males				

***Report class scores in percentages. Please use the following formula:**

Percentage = (sum of students' raw scores) ÷ (number of test items X number of students) X 100

Student Achievement Data Sample
Sample Worksheet / Computations —Average Percentage by Class

See the bottom of this worksheet for formula.	Total # Students	Pre-Assessment* (Average %*) 3/ 9/08	Post-Assessment* (Average %*) 4/12/08	Average % Gain/Loss
Total Class	4	**43.75%** 3+3+4+4 = 14÷32 (4 students x 8 test items) = .4375 x 100 = 43.75%	**78.12%** 7+8+7+3 =25÷32 = .7812 x 100 = 78.12%	**+34.37%** 78.12 - 43.75= 34.37
Gender				
Male	2	**43.75%** 3+4 = 7 ÷ 16 (2 students x 8 test items) = .4375 x 100 =43.75%	**68.75%** 8+3 = 11 ÷ 16 = .6875 x 100 = 68.75%	**+25%** 68.75 – 43.75 = 25
Female	2	**43.75%** 3+4 = 7 ÷ 16 (2 students x 8 test items) = .4375 x 100 = 43.75%	**87.5%** 7 + 7 = 14 ÷ 16 = .875 x 100 = 87.5 %	**+43.75%** 87.5 – 43.75 = 43.75
		Please continue using the formula to complete this worksheet.		
Race/Ethnicity				
Asian				
Black				
Hispanic				
White				
Other				
Socio-Economic Status Lunch				
Full Lunch				
Reduced				
Free				
Students with Special Needs				
List exceptionalities (LD…)				
Language				
English				
ESOL				
Non-English				
Race/Ethnicity x Gender				
Asian Females				
Asian Males				
Black Females				
Black Males				
Hispanic Females				
Hispanic Males				
White Females				
White Males				
Other Females				
Other Males				

***Report class scores in percentages. Please use the following formula:**

Percentage = (sum of students' raw scores) ÷ (number of test items x number of students) x 100

Appendix E

Forms
Test Item Analysis and Summary
Intervention Plan

Sample Worksheet / Computations
Test Item Analysis Worksheet

College of Education

Documenting Student Learning
Test Item Analysis, Summary, and Intervention Plan

Teacher Candidate _____Date _____

School _____ Grade Level _____

1. Analysis of Test Data

Conduct a Test Item Analysis of the pre- and post-assessment questions. The purpose of this analysis is to diagnose both your instruction and its assessments in order to identify potential problems (i.e., problems in your instruction or your assessments).

Use the following format for your Trends and Test Item Analysis.

Test Item	**Learning Goal/Objective**	**Students Responding to an Item Correctly Pre-Instruction**	**Students Responding to an Item Correctly Post-Instruction**	**Possible Indicators of:**
Sample	Differentiate between main ideas or themes and supporting details	15% Out of 20 students 3 responded correctly [3 ÷ 20 = .15 X 100 = 15%]	85% Out of 20 students 17 responded correctly [17 ÷ 20 = .85 X 100 = 85%]	Successful instruction
1		__%	__%	
2		__%	__%	
3		__%	__%	
4				
5				
6				
7				

Adapted by COE Assessment Committee
http://www.edtech.vt.edu/edtech/id/assess/diagnostics.html

***Report in percentages. Please use the following formula:**

Percentage = (total number of correct responses ÷ total number of students in the class) X 100

College of Education

Documenting Student Learning
Test Item Analysis, Summary, and Intervention Plan (continued)

2. Analyze and write a summary of the pre- and post-assessment results based on the Test Item Analysis.

College of Education

Documenting Student Learning
Test Item Analysis, Summary, and Intervention Plan (continued)

3. Using the *Test Item Analysis*, create a plan to improve the teaching of this unit. Please have your cooperating teacher review, approve, and sign your plan.

Intervention Plan *(if needed)*

I have reviewed the intervention plan and determined it to be appropriate.

Signature of Cooperating Teacher _____ Date _____

Test Item Analysis Worksheet

The following test diagnostics can help you design tests of appropriate difficulty level or tests that discriminate between high and low scorers. Test diagnostics can also help you pinpoint potential trouble spots in your instruction or your assessments.

Difficulty Levels

It is relatively easy to determine the difficulty level of individual test items. You simply divide the number of students who answered an item correctly by the total number of students who answered the item. Multiply that figure by 100.

Item Analysis for Diagnosing Instruction and Assessments

If you distribute your test items both pre and post-instruction, you can use a form of item analysis to diagnose both your instruction and its assessments. Simply compare the percentage of students who responded to an item correctly both pre- and post-instruction.

Test Item	Learning Goal/Objective	Students Responding to an Item Correctly Pre-Instruction [Pre-Assessment]	Students Responding to an Item Correctly Post- Instruction [Post-Assessment]	Possible Indicators of:
1	Differentiate between main ideas or themes and supporting details	**15%** Out of 20 students 3 responded correctly [3 ÷ 20 = .15 X 100 = 15%]	**85%** Out of 20 students 17 responded correctly [17 ÷ 20 = .85 X 100 = 85%]	**+70%** successful instruction
2	Identify stated and implied ideas	**15%** Out of 20 students 3 responded correctly [3 ÷ 20 = .15 X 100 = 15%]	**20%** Out of 20 students 4 responded correctly [4 ÷ 20 = .20 X 100 = 20%]	**+5%** defect in test item or in the instruction, need to re-teach content
3	Identify the main idea	**85%** Out of 20 students 17 responded correctly [17 ÷ 20 = .80 X 100 = 85%]	**90%** Out of 20 students 18 responded correctly [18 ÷ 20 = .90 X 100 = 90%]	**+5%** Complexity is too low; i.e., the pretest may not be appropriate for ability level
4	Distinguish between fact and opinion	**75%** Out of 20 students 15 responded correctly [15 ÷ 20 = .75 X 100 = 75%]	**25%** Out of 20 students 5 responded correctly [5 ÷ 20 = .25 X 100 = 25%]	**-50%** defect in test item, typo, need to check your question

Adapted by COE Assessment Committee
http://www.edtech.vt.edu/edtech/id/assess/diagnostics.html

*Report in percentages. Please use the following formula:

Percentage = (total number of correct responses ÷ total number of students in the class) X 100

Notes

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