### Assessing Teaching and Learning Practices in Classrooms that Foster Active, Collaborative Learning



**Audriana Stark** STEM Gateway, Graduate Assistant Organization, Information, & Learning Sciences

**Gary Smith** 

STEM Gateway, PI Director, Office of Medical Educator Development



#### **Project for Inclusive Undergraduate STEM Success**

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#### **Outline-**

- Description of the Learning Studios
- Rationale for assessing activity in the Learning Studios
- Explanation of the survey instrument
- Breakout session to review some of the collected data and evaluate the survey
- Debrief

#### **UNM Learning Studios**



### **Purpose for Administering Survey**

To determine the extent that the STEM Gateway supported courses taught in the Learning Studio achieve goals set by the Learning Environments Committee.

## 4 out of 5 goals set by Learning Environments Committee are measured:

- ✓ Maximize learner time-on-task
- ✓ Provide immediate learning-progress feedback
- ✓ Supporting peer collaborative learning
- ✓ Increase instructor access for students
- Improving the pass rate and grade achievement in courses

#### What the survey directly measures:



**Class Time Utilization** 

Modes of Immediate Feedback

**Collaborative Teaching Techniques** 

Use of Technology

Student Engagement in the Learning Process

## **Survey Construction**

- Developed by graduate students Larissa Thill and Elmer Gonzalez in
- 1. Educational Psychology 572 in consultation with Dr. Julie Sanchez and Dr. Gary Smith.
- 2. Selected questions from the Office of Information Technology,

University of Minnesota Active Learning Classroom survey.

- Revised with UNM learning studio
- **3.** instructor input.

### **Survey Implementation**

	Total # Courses Survey was Administered in	Total n	Response Rate
Mid-Semester	8	434	61%
End-of-Semester	6	464	62%

#### All Data Collected

	Total # Courses Data Pulled from	Total n	Response Rate
End-of-Semester	2	235	52%

Data Displayed Today

# Class Time Utilization

1. 1	<ol> <li>How often was each of the following teaching and learning activities experienced in class?</li> </ol>						
		Never	About once per month	Two or three times per month	About once per week	In every class	
Q1.1	Assignment completion	0	0	0	0	0	
Q1.2	Discussion with others	0	0	0	0	0	
Q1.3	Lectured more than one third of class time	$\odot$	0	0	0	0	
Q1.4	Lectured no more than one third of class time	$\odot$	0	0	0	0	
Q1.5	Time for professor accessible (questions/answers)	$\odot$	0	0	0	0	
01.6	Utilizing technology	0	0	0	0		

#### Survey Questions

Answer the following questions with reference to the survey items above and the response data provided on the next page.

1. What is the key take-away point from the data regarding class time utilization?

2. Are there any problematic survey items? If so, list the item numbers and briefly state why they are problematic.

# Class Time Utilization

Never
 About once per moth
 Two or three times per month
 About once per week
 In every class



Number of students



Least dator 2- Chem 121



5. How often was feedback experienced in class?

Q5.1		Never	About once per month	Two or three times a month	Once per week	In every class
Q5.2	Electronic feedback (iClicker use)	$\odot$	0	0	0	0
Q5.3	Verbal feedback from instructor/TA/PLF	$\odot$	0	0	0	0
	Verbal feedback from peers	$\odot$	0	0	0	0

Answer the following questions using the questions above and the data provided on the next page:

1. What is the key take away point from the data regarding modes of immediate feedback?

2. Are there any problematic survey items? If so list them and a brief sentence about why they are problematic.



Number of students



Instructor 1-EPS101



3. How often was each of the following partner/group collaboration experienced in class?

	Never	About once per moth	Two or three times per month	About once per week	In every class
Q3.1 In teams of 2-4 students	0	0	0	0	0
23.2 Table discussion	0	0	0	0	0
23.3 In-class interaction via software	0	0	0	0	$\odot$
Q3.4 Class discussion	0	0	0	0	0
Q3.5 White board activity	$\odot$	0	0	0	0
<sub>Q3.6</sub> Student/teacher interaction	0	0	0	0	0

Answer the following questions using the questions above and the data provided on the next page:

1. What is the key take away point from the data regarding collaborative teaching techniques?

2. Are there any problematic survey items? If so list them and a brief sentence about why they are problematic.



Q1.6

Q3.1 Q3.2 Q3.3 Q3.4 Q3.5

Q1.1

Q1.2 Q1.3

Q1.5 Q1.5 Q3.6

Q5.1 Q5.2 Q5.3

Q7.1 Q7.2

Question

Q7.3

Q7.4 Q7.5 Q7.6 Q7.7 Q7.8

Q7.9

Q9.1

Instructor 1-EPS101
 Instructor 2- Chem 121

Q9.7 Q9.8

Q9.2 Q9.3 Q9.5 Q9.6



**Use of Technology** 

7. How often was technology experienced in class?

	Never	About once per month month	Two or three times per month	About once per week	In every class
Q7.1 Personal laptops/pads	$\odot$	0	0	0	0
Q7.2 Classroom laptops	$\odot$	0	0	0	$\odot$
Q7.3 Blu-ray/DVD player	$\odot$	0	0	0	$\odot$
Q7.4 Drawing on instructor's monitor (Smart Podium)	0	0	0	0	0
Sharing views of students' work from Q7.5 classroom laptops (SmartSync)	0	0	0	0	0
Q7.6 WI-FI access	$\odot$	0	0	0	0
Q7.7 Document camera	$\odot$	0	0	0	$\odot$
Q7.8 Projection screens/projector	$\odot$	0	0	0	0
Q7.9 White board	0	0	0	0	0

Answer the following questions using the questions above and the data provided on the next page:

1. What is the key take away point from the data regarding the use of technology?

2. Are there any problematic survey items? If so list them and a brief sentence about why they are problematic.





### Student Engagement in the Learning Process

The classroom in which I am taking this course ...

		Strongly disagree	Disagree	Agree	Strongly agree
Q9.1	Increases my excitement to learn	0	0	0	0
Q9.2	Helps develop professional skills that can be transferred to the real world	0	0	$\odot$	0
Q9.3	Enriches my learning experience	0	0	$\odot$	0
Q9.4	Encourages active participation	0	0	$\odot$	0
Q9.5	Makes me want to attend class regularly	0	0	$\odot$	0
Q9.6	Helps me develop connections with my classmates	0	0	$\odot$	0
Q9.7	Engages me in the learning process	0	0	0	0
Q9.8	Nurtures a variety of learning styles	0	0	0	0

Questions selected from Office of Information Technology, University of Minnesota, Student Survey

Answer the following questions using the questions above and the data provided on the next page:

What is the key take away point from the data regarding students' engagement 1. in the learning process?

Are there any problematic survey items? If so list them and a brief sentence 2. about why they are problematic.



Number of students

