

**EDCI 786 Topics: Science Research in the Classroom
Final Report**

1. Brief Description of Research Partner’s Work (as you would describe it to your students).
Dr. Jumponen works with fungus and its connection to plant roots. The fungus and roots have a symbiotic relationship. Our unit will study this relationship.

2. Brief Description of Classroom Adaptation/Fit with Your Curriculum.
I use this unit when we are covering Diversity of Life. It is a perfect fit. There are several state standards that are addressed with this unit.

3. School Environment (Rural/Suburban/Urban; Local Economy; Other relevant features)
I teach in a rural middle school. Our town population is decreasing slightly over the last several years. There has been an influx of Hispanics that has kept our population from dropping a quite as much.
Our school has 51% of the students on free or reduced lunches. I do not have specific data on individual students.

4. Students Participating in This Unit:

Gender			
	Female	Male	Total
# Students	8	13	21
% Students	38%	62%	100%

Ethnicity							
	Asian	Black	Hispanic	Native Am	White	Multi-Ethnic	Total
# Students			6		15		21
% Students			29%		71%		100%

SES				
	Free	Paid	Reduced	Total
# Students				See note above
% Students				

		Other	
		Free/Reduced Lunch	Special Needs
# Students			LD-2
% Students			10%

5. Description/Reflection of Classroom Implementation

a. Day Taught/Placement in the Curriculum (what students already know)

I taught this unit in the fall semester. We were studying life science/ diversity of life. The students really had no previous knowledge of this topic.

b. General Response of Students/Points of Student Difficulty

The students were VERY receptive to the unit. The only point of difficulty was the gene sequence portion of the unit. I now think that this topic is too advanced for most of my seventh graders to really understand. Most got the idea that it matches with a known sequence but really did not understand what it meant. Next time I teach this unit I will try to figure out a way to do something different with that part.

c. Student Outcomes Data:

Student #	Pre-assessment % Score	Post-assessment % Score	Learning Gain Score
1	67	100	1
2	58	83	.60
3	75	100	1
4	67	100	1
5	33	92	.88
6	58	92	.81
7.	67	100	1
8.	42	92	.86
9.	67	100	1
10 .	50	100	1
11	67	100	1
12	58	92	.81
13	58	100	1
14	50	100	1
15	43	100	1
16	67	92	.76
17	33	92	.88
18	50	100	1
19	43	100	1
20	58	92	.81
21	67	100	1

Formula:
$$\frac{(\text{Post Assessment \%} - \text{Pre Assessment \%})}{(100\% - \text{Pre Assessment \%})} = \frac{\text{Actual Gain}}{\text{Potential Gain}}$$