## Academic Language

Preteaching Beginning ELL's for success in High School

### Setting the Stage

**The Observation**: Use your senses "The Hissing Cockroaches of Madagascar"

- How did you feel at the beginning of the session? Were you uncomfortable?
- Did you understand what you were being asked to do?
- What prior knowledge was assumed?
- How would you rate the difficulty of the vocabulary?
- What level of ELD student do you think could reasonably complete this observation lab?

### Presenters



Alexandra Buys
ESL Teacher



David Douglas High School



Jennifer Healey
ESL Department Chair
and ESL Teacher

## Sun: ELD 3 Student



Video

### The Lau Decision



Source: Historical Photograph Collection of San Francisco Public Library's San Francisco History Center.

o This 1974 Supreme
Court decision
places the
responsibility to
educate ELL's
regardless of English
ability firmly on the
school district

## David Douglas High School



- More than 40% of students have been or currently are served by our ELD program.
- 48 different languages are spoken



## Home Language Break Down David Douglas High School

| Language            | Count | Percentage |  |
|---------------------|-------|------------|--|
| English             | 1862  | 56.20      |  |
| Croatian            | 2     | 0.06       |  |
| Chuukese            | 7     | 0.21       |  |
| Oromo               | 2     | 0.06       |  |
| Tibetan             | 3     | 0.09       |  |
| Mien                | 5     | 0.15       |  |
| Tigrinya            | 3     | 0.09       |  |
| Kirundi             | 2     | 0.06       |  |
| Bosnian             | 4     | 0.12       |  |
| Маау-Маву           | 6     | 0.18       |  |
| Pohnpeian           | 1     | 0.03       |  |
| Yapese              | 3     | 0.09       |  |
| Karen               | 14    | 0.42       |  |
| Chinese - Other     | 14    | 0.42       |  |
| Filipino            | 4     | 0.12       |  |
| Chinese - Cantonese | 109   | 3.29       |  |
| Rohingya            | 4     | 0.12       |  |
| German              | 2     | 0.06       |  |
| Greek               | 2     | 0.06       |  |
| French              | 2     | 0.06       |  |
| Hindi               | 3     | 0.09       |  |
| Italian             | 2     | 0.06       |  |
| Korean              | 1     | 0.03       |  |
| Malay               | 2     | 0.06       |  |
| Albanian            | 1     | 0.03       |  |
| Chinese - Mandarin  | 10    | 0.30       |  |
| Persian             | 1     | 0.03       |  |
| Russian             | 227   | 6.85       |  |
| Arabic              | 24    | 0.72       |  |
| Serbo-Croatian      | 1     | 0.03       |  |
| Spanish             | 498   | 15.03      |  |
| Tagalog             | 11    | 0.33       |  |
| Ukrainian           | 81    | 2.44       |  |
| Vietnamese          | 181   | 5.46       |  |

| Language   | Count | Percentage |
|------------|-------|------------|
| Burmese    | 27    | 0.81       |
| Creole     | 2     | 0.06       |
| Farsi      | 1     | 0.03       |
| Cambodian  | 6     | 0.18       |
| Hmong      | 12    | 0.36       |
| Indonesian | 1     | 0.03       |
| Lao        | 7     | 0.21       |
| Nepali     | 34    | 1.03       |
| Palauan    | 1     | 0.03       |
| Romanian   | 34    | 1.03       |
| Somali     | 74    | 2.23       |
| Swahili    | 3     | 0.09       |
| Thai       | 6     | 0.18       |
| Tonga      | 1     | 0.03       |
| Turkish    | 10    | 0.30       |

## The top 10 Home Languages in the David Douglas District

| Language at Home    | Count | Pct  |
|---------------------|-------|------|
| English             | 7,333 | 59.1 |
| Spanish             | 1,973 | 15.9 |
| Russian             | 778   | 6.2  |
| Vietnamese          | 526   | 4.2  |
| Chinese - Cantonese | 276   | 2.2  |
| Ukrainian           | 259   | 2.1  |
| Somali              | 242   | 2.0  |
| Romanian            | 134   | 1.1  |
| Nepali              | 94    | 0.8  |
| Burmese             | 92    | 0.7  |

# Number of ESL students by Level

- Level 1=35
- Level 2=42
- Level 3=61
- Level 4=63
- Level 5=47
- Total number of DDHS Students = 2939
- Total number of HS ESL Students=248 (8%)

## Language Acquisition

oThe #1 factor in a student's success with second language acquisition is literacy in the first language.

# How long does it take for secondary students to learn English?

- All known research confirms that it takes
   5-7 years to become literate in a new language- that's the best case scenario.
- For students who are not literate in a first language, and/or those who have experienced trauma, it is more likely 7-10 years!\*

### Types of English Language Learners

- Literate students possess an education and can read and write.
- Preliterate students speak a language whose written form is rare or does not exist
- Non-literate students (formerly illiterate) speak a language that has a written form, but they have not learned to read or write it themselves.
- Semi-literate students have some formal education and are able to read and write at an elementary level (usually up to grade 4 reading level)

# Who are David Douglas High School ELL's?

- Ben is 16, literate and educated in his first language. He entered DDHS as a level 1. Within one year, he was able to move to level 3. He will graduate on time.
- Jasmine is 16. She is somewhat literate in her first language. She has been in refugee camps for 3 years. She entered DDHS as a level 1. Within one year, she is a very low level 2. She will need at least five years in order to graduate.
- Rose is 16. She has never been to school and is preliterate. She has been in level 1 for three years.

### The ESL Program at David Douglas High School

| Level 1      | Level 2                   | Level 3              | Level 4        | Level 5 |
|--------------|---------------------------|----------------------|----------------|---------|
| ELD          | ELD                       | ELD                  | ELD            | ELD     |
| Vocabulary   | Grammar/Writing           | ELD 3                | ELD 4          | ELD 5   |
| Grammar      | Reading                   | SI Lang Arts 3       | SI Lang Arts 4 |         |
| Reading      | Language Lab              |                      |                |         |
| Language Lab |                           |                      |                |         |
|              | Academic                  | SI Health            |                |         |
|              | Language                  | SI US History (9-12) |                |         |
|              | SI Digital Literacy       |                      | Engl           | ish 1   |
|              | SI Global Studies (10-12) |                      | Engli          | ish 2   |
|              |                           |                      |                |         |

### Legend:

- 1. The classes in italics are ELD specific classes for the exception of SI Language Arts 3 and 4 which are core classes.
- 2. The classes that aren't in italics are core content classes taught by ESL teachers for ELL students.

### Example of a Level 2 Student Schedule

| Student's Current Classes |           |             |              |             |   |
|---------------------------|-----------|-------------|--------------|-------------|---|
| Line                      | Pe<br>Beg | riod<br>End | Term<br>Code | Section ID  | Course<br>Title                         |
| 1                         | 1         | 1           | S2           | 010082492-1 | Academic<br>Language:<br>M/S            |
| 2                         | 2         | 2           | S2           | 010082322-1 | ELD 2<br>Language<br>Lab B              |
| 3                         | 3         | 3           | S2           | 010082222-1 | ELD 2<br>Reading B                      |
| 4                         | 4         | 4           | S2           | 05154122-05 | General<br>Art 1                        |
| 5                         | 5         | 5           | S2           | 10001S99-01 | SI Digital<br>Literacy                  |
| 6                         | 6         | 6           | S2           | 02072R22-15 | Geometry<br>B                           |
| 7                         | 7         | 7           | S2           | 08003192-11 | Individual<br>Lifetime<br>Rec: Sem<br>2 |
| 8                         | 8         | 8           | S2           | 010082122-2 | ELD 2<br>Grammar<br>B                   |

### Example of a Level 3 Student Schedule

| Student's Current Classes |     |      |      |             |                            |
|---------------------------|-----|------|------|-------------|----------------------------|
| Line                      | Pe  | riod | Term | Section ID  | Course                     |
|                           | Beg | End  | Code |             | Title                      |
| 1                         | 1   | 1    | S2   | 03051R22-01 | Biology B                  |
| 2                         | 2   | 2    | S2   | 01001S322-1 | SI<br>Language<br>Arts 3 B |
| 3                         | 3   | 3    | S2   | 01001U22-05 | English 1<br>B             |
| 4                         | 4   | 4    | S2   | 08051S22-01 | SI Health<br>B             |
| 5                         | 5   | 5    | S2   | 02072R22-14 | Geometry<br>B              |
| 6                         | 6   | 6    | S2   | 05001192-01 | Hip Hop<br>Sem 2           |
| 7                         | 7   | 7    | S2   | 010083122-3 | ELD 3                      |
| 8                         | 8   | 8    | S2   | 04101S22-03 | SI US                      |
|                           |     |      |      |             | History B                  |

## Why is secondary instruction of ELL's different from elementary?



 Research shows that language and literacy are much harder to acquire after the age of 12.\*

\* Dulay, Ellis, McKay, et.al.

# Why is secondary instruction of ELL's different from elementary?



- High school classes are taught for credit.
- When students fail, they must retake the entire class OR complete credit retrieval, an after school computer based program.

### 3<sup>rd</sup> grade science assignment example

Science

### THE LIFE CYCLE OF A PEANUT PLANT

In spite of its name, the peanut is not a nut. It is a legume. Beans, peas, and lentils are other types of legumes. Learn about the life cycle of the peanut through the activities below.

Use a word from the word bank to complete each sentence. Then number the sentences in the order of the life cycle that the peanut goes through.

| <br>Littlelower parts of the plants.           | grow on the |                                      |
|--|-------------|--------------------------------------|
| The peanuts grow inside a<br>under the ground. |             |                                      |
| <br>When thegrows down from each flower.       | die, a spe  | cial stem                            |
| <br>This stem is called a                      |             | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
| Farmers plant peanut<br>in long rows.          |             |                                      |



Use this box to draw a picture of a peanut plant. Show and label as many parts as you can.

Science





In spite of its name, the peanut is not a nut. It is a legume. Beans, peas, and lentils are other types of legumes. Learn about the life cycle of the peanut through the activities below.

Use a word from the word bank to complete each sentence. Then number the sentences in the order of the life cycle that the peanut goes through.

| 2 | Little petals           |      | grow on the | ( |
|---|-------------------------|------|-------------|---|
|   | lower parts of the plai | nts. | 9           | Ç |
| 5 |                         |      | and         |   |

The peanuts grow inside a \_\_\_\_\_\_\_under the ground.



1 Farmers plant peanut seeds in long rows.





Use this box to draw a picture of a peanut plant. Show and label as many parts as you can.



### High School science assignment example

DDHS Lab Format

| Name* Date  |  |
|---|--|
| · Period  |  |
| Title (try not to be boring)  |  |
| Problem:  |  |
| ♦ What are you trying to find out? There may be more than one. Include principles fearned in class that apply.  |  |
| n .   |  |
| I. Background Information:  |  |
| List FIVE things you know about the subject before making your hypothesis.                                      |  |
| n —   |  |
| II. Hypothesis:   |  |
| <ul> <li>a*What is your explanation of the problem? State your hypothesis with an If-then statement.</li> </ul> |  |
| "If, then   |  |
| b. → Explain why you think so — why you think this will happen.   To  |  |
| n i i i i i i i i i i i i i i i i i i i   |  |
| VVariables: 9   |  |
| List TEN variables that must be controlled in this lab.   |  |
| n   |  |
| VMaterials:  ■  |  |
| List the materials you will need, in disgusting detail.   |  |

Write step-by-step directions for how you plan to do both the control and the experiment. (List steps) Summarize the steps taken, with precision, so that someone who has not performed this lab has absolutely no questions about "howmuch" and "how." If a mixture was heated, give the temperature.

All drawings, measurements, averages (if applicable), observations, data tables, valculations, and graphs all go in this section. ·Labeling and neatness are assential in this section.

OBSERVATIONS: Observations are generally qualitative interpretations of what is occurring during the course of the experiment. Examples of possible observations are changes in color, odor, formation of a precipitate, escaping gas (from the experiment, not the experimenter!), temperature differences, pressure changes, or changes in solubility. Observations should be compiled under the heading "Observations" so that the reader knows what you are trying to do.

DATA: It is important that the data collected during the experiment be properly identified, and that correct numerical values and units are used. All numerical data will be placed in a neat and gulered data table. -All columns and rows will be labeled.

GRAPHING OF EXPERIMENTAL DATA: Graphing the results of an experiment involving two variables: helps make the relationship between the two variables more obvious. Here are some simple rules:

- a. Each square on a graph is equal to the assigned quantity (1 gram, 4.23 liters, 55 days, etc.), but the scale on either axes may be changed if the graph is too compact or needs to expand. 'The larger the graph, within reason, the better the graph. 'As the teacher gets older, his eyesightcontinues to deteriorate; so big and colorful graphs will be greatly appreciated.
- b. It is important to label both the vertical and horizontal axes with the factors being graphed and also to indicate units being used, such as volume in liters, mass in grams, or length in cm.
- c. After the points have been located and marked on the graph, use a straight edge to connect the points. "Messy lines really detract from the inner beauty of the graph.

CALCULATIONS: All valculations should be properly labeled. For chemistry, remember to consider the accuracy and precision of the instruments used. Also, remember the rules regarding significant

### DDHS Lab Format

◆ Write paragraphs using complete sentences that includes the following: ■

### First-Paragraph

- a. Was your hypothesis correct?
- b. Using your results as evidence, explain why your hypothesis was correct or not correct and what your results indicate? Be specific and give examples.
- c. Provide a possible explanation for the results you found. (Why did what you see happen?)

### Second-Paragraph

- a. Discuss your experimental uncertainty. Remember, this is not a list of all the things that COULD have gone budly but, rather, a discussion of all of the obvious areas that created uncertainty as to the accuracy of
- b. How could EACH of your parea of experimental uncertainty have influenced your results, if at all?
- c. How could you have improved your experiment, such as, but not limited to, the ordering of your procedure, the detail included in your procedure, use and quality of the equipment, the phrasing of your hypothesis, identifying of variable to control, and the accuracy of your data.

### Third Paragraph

- a. Give at least two examples of where the idea or ideas found in this lab are seen in everyday life. 🗖
- b. Give at least one example of how this lab could lead to related experimentation.

\*\*Stay away from using personal pronouns such as "I", "You" and "We" because it detracts from the professionalism of the write up. -Please remember that when summarizing do so simply. -The simplest statements show your wisdom; fagey language and huge technical words are mostly used to convey shallow thoughts (in another words, don't try to fake what you do not know). 5

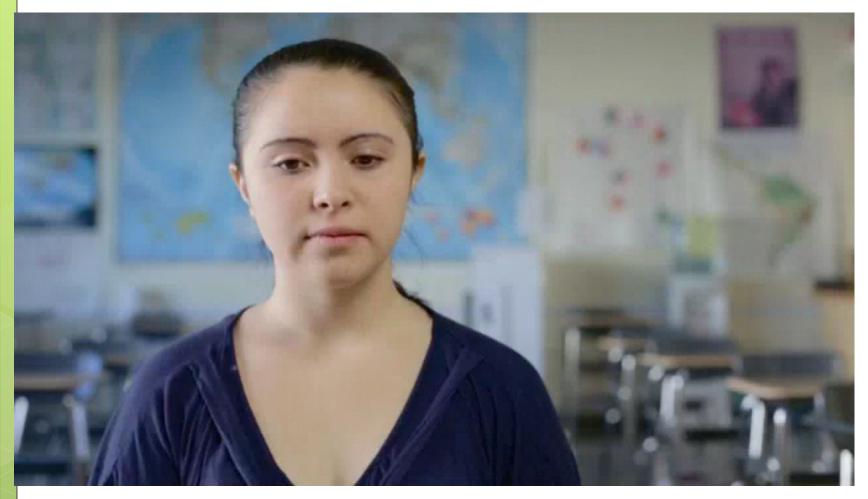
### IX. · Ouestions •

Answer any and all questions that may be associated with this lab.

### X. Reflection

- →1. What did you like about this lab? ¶
- →2. What did you think could have been improved? ■
- →3. Why were you successful in this lab? ¶
- → 4. What do you think you deserve on this lab and why?

### Alondra: ELD 2 Student



# Why Academic Language for science?

- Level 2/3 students had a high failure rate in science classes
- Literate students possessing science knowledge in a first language failed
- Non-literate students without science knowledge in a first language failed
- CCSS and SBAC assume prior knowledge learned in grades K-8
- As a result, we developed a class to better prepare ELL's for the rigors of the science classes and SBAC

### Collaboration

- Science and ELD teachers worked extensively to determine the science knowledge the ELL's were lacking
- Science teachers made science curriculum available to ELD teachers
- Using the CCSS for science, units were mapped out to fill in the gaps for General Science and Biology
- Vocabulary lists were developed for each unit

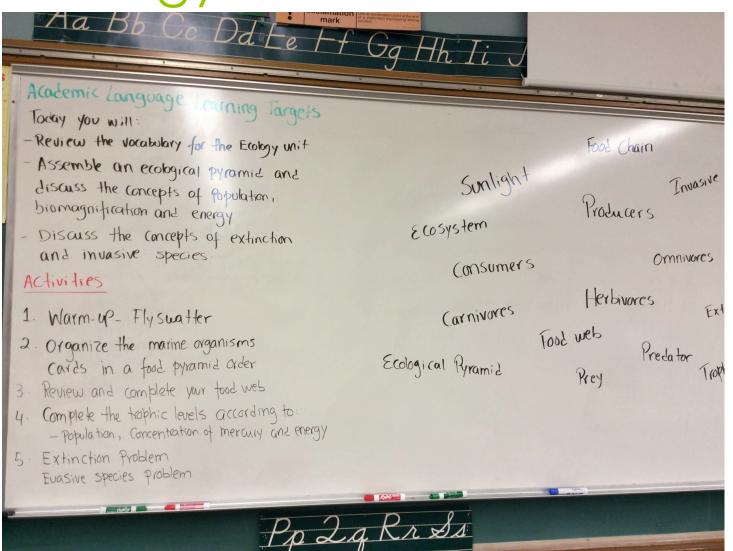
## Academic Language for Social Studies and ELA

- ELD teachers identified knowledge gaps for ELL's.
- For example, High School US History covers 1900-present
- However, students who entered US schools at the high school level had no exposure to events prior to 1900
- The CCSS and SBAC assume prior knowledge gained in grades K-8

### Sharon Webster: Vice Principal of David Douglas High School



**Ecology Unit** 



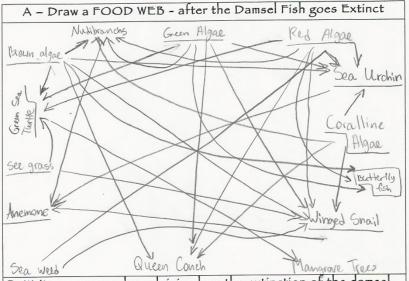
### Ecology: The Food Web

- At what trophic level will you find the most energy?
- Write a paragraph explaining how the extinction of the damsel fish affects the food web.



### Answers

Academic Language Science/Math
Ms. Buys
Unit 4: Evolution/Ecology



B. Write a paragraph explaining how the extinction of the damsel fish affects the Food Web.

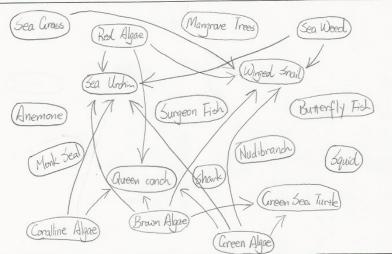
If the Pansal Fish goes exchinct then there will be a change in the ecosystem. Equal, Surgeon Fish and Anemone are not Damsel Fish so their population will go down. Their choice of food will decrease.

Academic Language Science/Math

Ms. Buys Unit 4: Evolution/Ecology

Per: 4.

A - Draw a FOOD WEB - after the Damsel Fish goes Extinct



B. Write a paragraph explaining how the extinction of the damsel fish affects the Food Web.

If the damsel fish goes extinct, the food used will have many change. The number of animal what cat damsel fish will go down.

They will become kess and less. For example, Anemone eat damsel fish. If they don't have any damsel fish to eat, they can't get enough food, some of them will die. In the same time,

Winged Snail, Nudibrarchs and sea Urchins will go less and.

less, too. This happened because Anemone eat more of them in the future. I think the Anemone and what the Anemone eat will go extinct in the future.

### Next Steps: Data Collection

- Pull ELL students' grades from 3 years prior to the offering of Academic Language.
- Look at data from last year and this year.
- Compare students' failure rate before the offering of the Academic Language classes and after.

**Note**: The intention it is not to look for a causal relationship in the results. The intention is rather to look for degree of correlation.

## Before you leave...

- What were the aha moments from this presentation?
- What are some suggestions or comments you would like to share?

### **Our Contact Information:**

-Alexandra Buys

alexandra\_buys@ddouglas.k12.or.us

-Jennifer Healey

jennifer\_healey@ddouglas.k12.or.us