Introduction
Oftentimes, refugee adolescents are Students with Interrupted Formal Education (SIFE); frequently functioning at (at least) two years below expected grade level, especially in science. This is supported by Cummin’s (1981) proposal of Cognitive Academic Language Proficiency (CALP), where L2 learners are linguistically several years behind in comprehending and expressing content based materials as opposed to their (BICS) Basic Interpersonal Communication Skills. This project test for narrative patterns in relation to the Nepali L2 population in Buffalo, in order to develop a pedagogical model, for science education. The experiment was drawn upon the ideas of Slobin (1994), Brough’s The Fairy Tales of Science: A Book For Youth (date unconfirmed).

According to Fensham (2001), “For some strange reasons… until very recently have forgotten that story could be a powerful form of education in… science” (pg. 6). Considering the relationship of BICS and CALP for L2 learners, would it be beneficial to connect science and storytelling for ESL students?

Method:
The following diagram of the food chain was presented to two female ninth graders and two male twelfth grade Nepali ESL students:

The students were asked to narrate the “story” of the above image starting with “Once upon a time” and concluding with “The End.”

Their narration was video-taped. Thereafter, the student was given a vocabulary sheet with highlighted vocabulary with the following definitions included:

Once again, the student was asked to narrate the story of the above diagram, except this time, they were asked to integrate the vocabulary from the handout into their story.

Fig. 5: Contrast of Selected Vocabulary

<table>
<thead>
<tr>
<th>Example of BICS: “Snake”</th>
<th>Nepali L2 Female: 4 Years</th>
<th>Nepali L2 Male: 4½ Years</th>
<th>Native English Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of CALP: “Tertiary Consumer”</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Results:

Fig. 2.1 and 2.2: Provides an overview of the percentage of usage of classification vocabulary in terms of the specific animal within the food chain. This demonstrates an imbalance within the CALP vocabulary range. It should be noted that usage of vocabulary does not necessarily conceptual accuracy, as Fig. 3 and 4 will demonstrate.

Discussion:
- **Discourse Elicitation:** Methodological albeit the retelling is in parts and not the whole thing.
- **Performance:** According to the Gricean Principle
- **Semantics:** Simple referring terms which is a property of indexing at the structure of discourse.
  - The usage of relational terms is the extent to which it captures the structural terms.
  - Relational meaning is referring to abstract structure to the extent that they are getting representation.
- **Arbitrary Sequence:** Due to lack of mental representation

Limitations:
- Insufficient quantity of total L2 subjects if projected onto a larger demographic population. For the scale and purposes of this project, L2 quantity is sufficient.
- This project is the initial pilot project to future research.

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Web References:
- http://www.discoversoftware.com/content/animal/foodchain/foodchain.html