

# Overcoming Barriers to Hands-On Learning for English Language Learners

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## SUMMARY

The positive impact of hands-on learning for English language learners (ELL) is well-documented. Research shows that “English learners make more rapid progress in mastering content objectives when they are provided with multiple opportunities to practice with hand-on materials and/or manipulatives”. (Echevarria et al. (2008), p.139).

## AUDIENCE

All Educators

## COMMON BARRIERS TO HANDS-ON LEARNING FOR ELL

1. **Cognitive load** – The number of new concepts embedded in the activity. It is imperative to assess prior knowledge and then fill in conceptual gaps by relating new concepts to students’ life experiences.
2. **Culture load** – The way language and cultures are related and the amount of cultural knowledge required for understanding and participating in the activity.
3. **Language load** – The number of unfamiliar words language learners encounter while reading texts and listening to peers and/or the teacher.
4. **Learning load** – The level abstraction of the activities. For example, language learners have difficulty with brainstorming because it often lacks visual examples and requires writing and speaking in English. Students struggle with learning these skills in addition to the content being discussed.

## OVERCOMING THE BARRIERS

Before the activity:

- Assess prior knowledge using KWL charts (What I know/What I want to know/What I learned)
- Learn more about the students’ families, cultures, and life experiences

During the activity:

- Demonstrate proper handling of materials using appropriate language to explain each step, including when to engage in each step (sequence). Language learners need to learn words in context to understand their meanings and usage.
- Provide frequent practice for learning when to speak, write, raise hands, etc.
- Start with simple language to begin the learning of a topic or procedure and then gradually add complex language. For example, in the RAFT activity Envelope Books, describing the folding of the envelope books as “accordion-style” might lead to confusion. A better descriptor might be “folded back-to-front”. The accordion analogy can be used after students are taught what an accordion looks like.

In general:

- Break complex sentences into smaller ones; provide texts that cover the content at different reading abilities. Model effective usage of academic and social language.
- Define the objective in using a specific language-based activity to learn particular concepts. For example, a teacher's lesson objective might be to teach students how gravity affects falling bodies. Having students brainstorm instances where they have seen objects fall might not help language learners get the idea about gravity's effects on falling bodies. A better approach would be to demonstrate gravity by dropping different objects in front of the students and then have students share their observations.
- Introduce a topic and model how to visually represent ideas in a graphic organizer. This familiarizes students with vocabulary they will need to develop their ideas on a topic and provides necessary pre-writing skills.

## RELATED RESOURCES

Tip Sheet - *Working with English Language Learners* - <http://www.raftbayarea.org/tip-sheets>

RAFT hands-on activities that can help students practice and reinforce language skills:

***Coming Full Circle*** - <http://www.raft.net/ideas/Coming Full Circle.pdf>

***Envelope Book*** - <http://www.raft.net/ideas/Envelope Book.pdf>

***This Reminds Me of the Fair*** – <http://www.raft.net/ideas/This Reminds Me of the Fair.pdf>

***Word Wise*** – <http://www.raft.net/ideas/Word Wise.pdf>

Information for teaching kinesthetic learners:

<http://busyteacher.org/14223-how-to-teach-tactile-kinesthetic-learners-9-ways.html>

## OTHER SOURCES:

Echevarría, J., Vogt, M.E., & Short D.J. (2008). *Making content comprehensible for English learners: The SIOP model*. Pearson.