

ACCELERATING ACADEMIC LITERACY FOR ELLS

Accelerating Academic Literacy for ELLs through Thematic Activities

Joel R. Montgomery, EdD

University of Phoenix

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Accelerating Academic Literacy for ELLs through Thematic Unit Activities

This paper identifies a series of activities which reinforce each other and form part of a thematic unit of instruction across the content areas for English language learners (ELLs). These activities will be connected to the relevant English language proficiency (ELP) standards established at level three by the World-Class Instructional Design and Assessment (WIDA) Consortium (Teachers of English to Speakers of Other Languages [TESOL], 2005; World-Class Instructional Design and Assessment Consortium, 2008)¹. Relevant research into design, implementation, and assessment of ELL learning activities is discussed. The paper concludes with a summary of the information reviewed and recommendations for next steps.

Accelerating Academic Literacy through Thematic Units Across Core Academic Curricula

Cummins (1999) distinguishes second language acquisition in two areas, social fluency (BICS) and academic proficiency (CALP). ELLs, especially students in the middle grades (seventh and eighth graders), need to develop proficiency in the second language in both areas. A “conversational fluency” can be established in BICS in roughly two years. Developing academic proficiency in CALP can require five to 10 years. Cummins says that both BICS and CALP develop from social interactions the learners have with others in their environment. ELLs develop vocabulary and fluency in both BICS and CALP by listening to and engaging in conversations with others. While fluency at the BICS level reaches a plateau, literacy and vocabulary knowledge (CALP) “continue to develop . . . throughout our lifetimes” (p. 3).

Thematic units across the core academic curriculum (Collier & Thomas, 2004; de Jong, 2002; Echevarria, Vogt, & Short, 2004; Kucer & Silva, 1999) are advocated as a means to increase cognitive challenge and to assist ELLs to close the gap created by their peers in the instructional mainstream who constantly push ahead. These thematic units focus on real-world problem solving and involve the use of both peer teaching and cooperative learning strategies.

ELLs benefit from structured opportunities to practice using meaningful academic English with other students at the same ELP level so that students interact in a collaborative investigation of a body of knowledge (Echevarria, Vogt, & Short, 2004). Middle school students also benefit from working collaboratively on issues of social concern which deal with real-world issues and for which there is no clean-cut solution (Santrock, 2007).

Selection of Global Warming and its Impact on Arctic Animal as a Thematic Unit

One of the books frequently used in the middle school curriculum is *Julie of the Wolves* by Jean Craighead George (1972). The book, available in English, Spanish, and on audio, gives the reader insight into the life of the Arctic wolf and the other creatures, including man, who live on the Arctic tundra. There are also an abundance of resources available to help students engage in reading the book (Glencoe Literature Library, 2008). In the last few years, many of the changes taking place in the Arctic have been documented and Discovery Education, a primary resource for digitized video-clips for use in the classroom, has a series of video-clips that document global warming and its impact on the Arctic (Discovery Channel School, 2004a). Former Vice-President Al Gore was awarded the Nobel Prize for his work on educating the planet about global warming (MSNBC, 2007; Nobel Prize.org, 2007). The 2006 release of *An Inconvenient Truth*, a documentary about global warming (David, et al.) made much this work

available to the general public. The film itself, and its director, Davis Guggenheim, won the Academy Award in 2008 for Documentary Feature (Oscar.com, 2008).

Because of the multiple sources of rich, multisensory contextual cues available regarding global warming and its impact on Arctic animals, that was the theme selected for use for a Language Experience class which serves as a bilingual enriched intervention class for seventh and eighth grade students at Kimball Middle School in Elgin, Illinois. To qualify for the class, students must have attained an ELP level of three. Illinois is one of the 18-member states of the WIDA Consortium and uses the ELP standards published by WIDA as the ELP standards for the state (Illinois State Board of Education [ISBE], 2004).

Listening Activity

Introduction for the students

Today we are beginning our Web Quest on global warming and its impact on Arctic animals. We will have some new vocabulary to master and we will be getting to know the Arctic animals we want to work with as we do this unit. Because not many of us have been near the North Pole, where the Arctic is, and because we have not seen many of the animals who live there, we are going to start our unit with some short video-clips that will introduce us to some of these animals. Our content objectives for this activity are to become familiar with the vocabulary used to describe the Arctic and its animals. We will also choose one Arctic animal to work with that we will see on the videos. Our language objectives for this activity are to tie the names for these Arctic animals to what they look like. We will not be drawing pictures today and later you will be able to look for photographs of your animal on-line.

The graphic organizer that each of you has is designed to help you capture some of what you will need to know today. On the back, near the bottom of the page, is a list of the Arctic

animals you will see today and a list of the videos that will introduce them. When we get back to our computer lab, you can re-play any of the videos you see today if you want more information. Your goal for this part of the period is to watch the videos, to keep track of the Arctic animals using your graphic organizer, and, at the end of the videos to decide which Arctic animal you want to work with during the project. You will have a chance later today to work in groups exploring the animals you choose in this part of the project. If you have a question about any part of the video, make a check mark on your graphic organizer by the video or animal and write down one or two words to help you remember your question. We can look at all the questions after everyone has seen the videos for the first time.

Graphic organizer—Listening checklist activity with ELP level three descriptors

Table 1-Listening Checklist Activity with ELP Level Three Descriptors

Animals Featured on Selected United Streaming Videos			WIDA “Can-Do” Performance Descriptors (2008, p. 58) (This column will not be seen by students.)	
Video	Animal	Interest/Question	Listening descriptors	
<i>Arctic Habitat</i> (100% Educational Videos, 2000)	Polar Bears		Locate, select, and order information from oral descriptions.	Categorize or sequence-order information using pictures,
	Arctic Fox			
	Snowy Owls			
<i>Alaska’s Arctic Animals</i> (Discovery	Polar Bears			
	Caribou			
	Walrus			

Channel School, 2006)	Lemming			objects.
<i>Sea Bird Colonies on the Arctic Floe Edge</i> (Discovery Channel School, 2004b)	Sea Birds: Diving Murre			

Conclusion for the student

Now that we have seen the videos and have gathered enough information about our Arctic animals to make a choice about which one we want to work with, let us share what animals we have chosen to study and why we chose that one. We will do this out loud so that we can also begin to match people who are interested in the same animal for the next activity.

Remember to bring your completed graphic organizers with you to the next activity. You will need it to know what key information you are looking for about your animal.

After the sharing, the teacher invites students to summarize what they have learned so far and ties their remarks to the objectives for the listening activity.

Reading Activity

Introduction for the student

This activity introduces us to the books available to us in our school library that may have some of the information we need to learn more about our Arctic animals. Our content objectives for this part of the project are to gather the information we need to answer each of the questions on our graphic organizer and to have enough information to complete a K-W-L chart about our animal. Our language objectives for this activity are to collect some of the key vocabulary that we find in print about our animal and to put the words we are finding on the K-W-L chart. When we finish this part of the project, we will return to the computer lab and begin to use the computer to conduct more research on global warming and on its impact on our animals.

Graphic organizer—Reading checklist activity with ELP level three descriptors

Table 2—Reading Checklist Activity with ELP Level Three Descriptors

<p>Encyclopedias have all kinds of information and facts. They are arranged differently and have different information. For this exercise, use two different print versions of encyclopedias (books) and one other reference book to answer the questions below.</p>	<p>WIDA ELP Level Three “Can-Do” Descriptors (Reading) (WIDA, 2008, p. 58) (This column will not be seen by students.)</p>
<p>The animal I researched was the</p>	
<p>Name of 1st encyclopedia</p>	
<p>Name of 2nd encyclopedia</p>	

Name of other reference book	Reading Descriptors (These are repeated throughout the activity.)		
1. What kind of animal is it? (E.g., snake, bird, mammal, etc.)	Sequence pictures, events, processes	Identify main ideas.	Use context clues to
2. Where is the native habitat of this animal? (Where does it live? Where does it travel to for food?)			
3. What kind of temperature range does this animal like? (How hot and how cold does it like temperature to be?)			
4. How big does this animal get?			
5. What does this animal eat? Does it have a varied diet (eat more than one thing)?			
6. What other animal eats or kills this animal? (Are there more than one?)			
7. Is this an endangered species?			
8. Was this animal mentioned in the book, <i>Julie of the Wolves</i> (<i>Julia de los lobos</i>)?			

<p>List one additional interesting fact about this animal from each book you consult.</p>			
<p>9.</p>			
<p>10.</p>			
<p>11.</p>			
<p>12. Based on what I have learned about this animal so far, what can I guess about how global warming will change the lifestyle of the animal?</p>			
<p>13. What do I think humans might be able to do to help this animal survive global warming?</p>			
<p>14. Where can I go to find out more about how global warming is changing this animal's life and lifestyle?</p>			
<p>15. What else do I want my team to help me to learn about this animal?</p>			

Conclusion for the students

By working with this activity, we've begun to add more to our knowledge base and vocabulary about our Arctic animals and have had a chance to put into practice what we learned earlier in the year about working with reference books. Each of us has found new information about our Arctic animals and knows more about their lifestyles and needs. We've added to our vocabulary, though each person has learned some words unique to his or her animals. When we go upstairs (to the computer lab), we will complete our K-W-L chart about our animals and will begin to work with the web quest materials to explore the Internet for pictures of our animals and for more information about how global warming is changing their lives. We will actually watch Vice-President Gore's movie about global warming, *An Inconvenient Truth* (David, et al., 2006) in the lab in the next few days. Our K-W-L charts may give us some questions we may try to answer when we watch that movie. Let's work with some volunteers who would like to share what they have learned about their Arctic animals and about where they found the best source of information so far about their animal.

After the volunteers have shared, the teacher comes back to remind them to keep good notes on their graphic organizers and to work together upstairs to produce a K-W-L chart to guide the next part of their investigation.

*Speaking Activity**Introduction for the students*

In this activity, working with partners, we are going to make predictions about how we think global warming will affect our Arctic animals. We will share these predictions with each other and put them on our K-W-L charts later. We will also review the web quest materials and links (Montgomery, 2008, Process) and will describe to each other the procedures we plan to

follow as we begin our Internet research. As we find the connections between global warming and our Arctic animals, we will work with our partners to retell stories or events from the Arctic videos (Discovery Channel School, 2004a) we have seen that show our animals and what is happening to them because of global warming. Content objectives for this activity are to use academic vocabulary in meaningful ways as we talk with each other about our predictions, our procedures, and our stories. Our language objectives are to communicate in academic English as much as possible and to make sure that we are being understood by our partners.

Graphic organizer—Speaking checklist with ELP level three descriptors

Table 3—Speaking Checklist with ELP Level Three Descriptors

Speaking Checklist	WIDA ELP Level Three “Can-Do” Descriptors (Speaking) (WIDA, 2008, p. 58) (This column will not be seen by students.)
Make predictions about the impact global warming will have on our Arctic animals.	Formulate hypotheses, make predictions.
Describe the processes and procedures we plan to follow as we begin our Internet research.	Describe processes, procedures.
Retell stories from the Arctic videos.	Retell stories, events.

Summary for the students

In this activity we practiced using the academic vocabulary related to global warming and its impact on Arctic animals effectively. We succeeded in having meaningful conversations using the academic language and vocabulary appropriate to our topics. We were also successful in describing the processes and procedures we need to follow to be successful when we are

conducting our Internet research. Finally, we were able to retell the stories and events contained in the United Streaming (Discovery Channel School, 2004a) videos.

Let us hear from volunteers about what you learned from engaging in this activity. What did you learn? Have you changed your mind? Why or why not?

After sharing about reflections on learning, teacher moves to the next step. For our next activity, we will be taking what we have learned so far and will create our K-W-L chart so that we can continue to build our knowledge and understanding of global warming and its impact on Arctic animals.

Writing Activity

Introduction for the students

So far in this activity we've learned some information about the Arctic, the land around the North Pole. We've also learned something about a variety of the animals living in the area. Now, working in pairs, you will build a K-W-L chart based on the base-line data you have gathered about your Arctic animals. The K-W-L chart will help guide you in your research for more information. For example, while we are learning about Arctic animals, how much are we learning about global warming or how it affects our animals? Our content objectives for this activity are to capture the main ideas and vocabulary we have learned so far, to document that information and to share it so that everyone can share feedback and make this project the best it can possibly be. As we complete our K-W-L charts, our content objectives include using the content vocabulary we have been learning appropriately. We also want to have clear questions about our animals and global warming—something that can guide us going forward. Our language objectives for this activity are to communicate effectively, with good grammar and

vocabulary, and to speak and write using the academic vocabulary we have listened to and read during this project so far.

Graphic organizer—K-W-L chart with ELP level three descriptors

Table 4—K-W-L Chart with ELP Level Three Descriptors

What we Know	What we Want to Know	What we Learned	WIDA ELP Level Three “Can-Do” Descriptors (Writing) (WIDA, 2008, p. 58) (This column will not be seen by students.)		
About our Arctic Animal			Produce bare-bones expository text.	Compare/contrast information.	Describe events, people, processes, procedure.
About global warming					

Conclusion for students

Our K-W-L charts that we created in this activity will serve us as springboards for the next phase of our project. Again, we will work with the web quest materials and the United Streaming videos (Discovery Channel School, 2004a) and with *An Inconvenient Truth* (David, et al., 2006) to gather the information we need about global warming and its impact on Arctic animals. As we gather this information we need to remember to work with Microsoft PowerPoint. We will be capturing lots of pictures that support what we are saying. We also need to capture the web sites that generated these pictures. I will show the teams how to do this as we move into the next phase of our research.

Our K-W-L charts showed us the appropriate use of academic vocabulary in connection with global warming and our arctic animals. We paid attention to our writing and know that we are using the words and language correctly as we continue to explore the Arctic and its animals and global warming.

Summary and Recommendations for Next Steps

This paper identified a series of activities which reinforced each other and formed part of a thematic unit of instruction across the content areas for English language learners (ELLs). These activities were be connected to the relevant English language proficiency (ELP) standards established at level three by the World-Class Instructional Design and Assessment (WIDA) Consortium (Teachers of English to Speakers of Other Languages [TESOL], 2005; World-Class Instructional Design and Assessment Consortium, 2008). Relevant research into design, implementation, and assessment of ELL learning activities was discussed. The paper concluded with this summary of the information reviewed and recommendations for next steps.

Recommendations for Next Steps

Thematic units of instruction across the content areas are extremely valuable resources for ELL students to build needed academic literacy skills and to practice English in a collaborative setting targeted at exploring and discovering solutions to real-world problems. This particular unit on global warming and its impact on Arctic animals is especially rich in multisensory contextual cues because it is such an important and timely topic. More activities are needed to continue the cycle started by these four. While not specifically linked to Cummins' framework (1983), it is clear that, as students develop a comfort level in working with the academic vocabulary connected with this thematic unit, they will be able to engage in meaningful conversations about the topic without having to remain totally in a BICS

conversation mode. Students will be building their academic knowledge and vocabulary (CALP) and be operating in quadrants A and C on Cummins' framework. As they continue with this project, they can be expected to find new ways of linking cognitive and metacognitive skills acquired and practiced in this type of learning environment to different contexts. ELL teachers dealing with different content areas in middle schools should see if they can create a multidisciplinary thematic unit to challenge more of their students to grow and to think and to make new connections between academic knowledge and solving real-world problems.

References

- 100% Educational Videos. (2000). *Habitats: homes for living things: Arctic habitat* [Digital Video Segment]. Retrieved June 15, 2008, from unitedstreaming: <http://streaming.discoveryeducation.com/>
- ClimateCrisis.net. (2006). *An inconvenient truth: the science*. Retrieved on June 15, 2008, from <http://www.climatecrisis.net/thescience/>.
- Collier, V.P. & Thomas, W.P. (2004, Winter). The astounding effectiveness of dual language programs for all. *NABE Journal of Research and Practice* (2),1, pp. 1-20. Retrieved on June 15, 2008, from <http://njrp.tamu.edu/2004/PDFs/Collier.pdf>.
- Cummins, J. (1999, January 1). *BICS and CALP: Clarifying the Distinction*. . (ERIC Document Reproduction Service No. ED438551) Retrieved June 12, 2008, from ERIC database.
- Cummins, J. (1983). Language proficiency, biliteracy and French immersion. *Canadian Journal of Education / Revue canadienne de l'éducation*, 8(2), pp. 117-138. Retrieved June 12, 2008, from stable URL: <http://www.jstor.org/stable/1494722>.
- David, L.; Bender, L.; Burns, S.Z. (Producers); Guggenheim, D. (Director); Gore, A. & West, B. (Featured). (2006). *An inconvenient truth* [Motion Picture]. United States: Paramount Classics & Paramount Productions.
- ClimateCrisis.net. (2006). *AIT in the classroom*. Retrieved June 15, 2008 from, http://stage.takepart.com/social_network/action/thevisitor/Docs/AIT_Full.pdf.
- de Jong, E.J. (2002, Spring). Effective bilingual education: from theory to academic achievement in a two-way bilingual program. *Bilingual Research Journal*, 26(1), pp. 1-17. Retrieved June 15, 2008, from http://brj.asu.edu/content/vol26_no1/html/art5.htm.

Discovery Channel School. (2004a). *Biomes: Wild Arctic* [Digital Video]. Retrieved June 15, 2008, from

unitedstreaming: <http://streaming.discoveryeducation.com/>

Discovery Chanel School. (2004b). *Biomes: WildArctic: Sea birds on the Arctic floe edge: the diving Murre* [Digital Video]. Retrieved June 15, 2008, from

<http://streaming.discoveryeducation.com/search/assetDetail.cfm?guidAssetID=B8ABD235-0A48-4994-AEB2-327445AF426C&tabStart=vid>.

Discovery Channel School. (2006). *Discovering Language Arts: Listening and Speaking- Alaska's Arctic Animals (Grades K-2) Digital Video Segment*. Discovery Channel School (2006). Retrieved June 15, 2008, from

unitedstreaming: <http://streaming.discoveryeducation.com/>

Echevarria, J.; Vogt, ME., & Short, D.J. (2004). *Making content comprehensible for English learners: the SIOP model*, 2nd Ed. New York, NY: Allyn & Bacon.

George, J.C. (1972). *Julie of the wolves*. New York: Harper Collins.

Glencoe Literature Library (2008). Study guide for *Julie of the wolves*. New York: McGraw-Hill. Retrieved on June 15, 2008, from

http://www.glencoe.com/sec/literature/litlibrary/pdf/julie_of_wolves.pdf.

Illinois State Board of Education (ISBE). (2004). EL proficiency standards presentation, March 11, 2004. Retrieved on June 13, 2008, from

http://www.isbe.net/bilingual/pdfs/el_proficiency_standards_presentation.pdf.

Kucer, S.B. & Silva, C. (1999, Fall) The English literacy development of bilingual students within a transition Whole-Language curriculum. *Bilingual Research Journal*, 23(4), pp. 1-24. Retrieved June 15, 2008, from <http://brj.asu.edu/v234/articles/art3.html>.

- Montgomery, J.R. (2008). Helping Arctic animals survive global warming [Draft Web Quest]. Retrieved on June 15, 2008, from <http://questgarden.com/53/34/6/070713125535/>.
- MSNBC (2007) Gore, U.N. climate panel win Nobel Peace Prize (October 12, 2007). Retrieved on June 15, 2008, from <http://www.msnbc.msn.com/id/21262661/>.
- Nobel Prize.org (2007) The Nobel Peace Prize 2007 (October 12, 2007). Retrieved on June 15, 2008, from http://nobelprize.org/nobel_prizes/peace/laureates/2007/press.html.
- Oscar.com (2008) Winners list: winner: *an inconvenient truth*, *Davis Guggenheim* (February 24, 2008). Retrieved on June 15, 2008, from <http://www.oscar.com/oscardnight/winners/?pn=detail&nominee=aninconvenienttruthdocumentaryfeaturenominee>.
- Santrock, J.W. (2007). *Adolescence* (11th ed.). New York: McGraw-Hill.
- Teachers of English to Speakers of Other Languages. (2005). *TESOL Revised PreK-12 English Language Proficiency Standards Preview (March 3, 2005)*. Retrieved June 15, 2008, from http://www.tesol.org/s_tesol/bin.asp?CID=1186&DID=3461&DOC=FILE.PDF.
- World-Class Instruction Design and Assessment (WIDA) Consortium. (2008a). English language performance standards resource guide. Retrieved June 15, 2008, from http://www.wida.us/standards/Resource_Guide_web.pdf.

¹ TESOL (2005) notes that its revision of English language proficiency standards is “An Augmentation of the World-class Instructional Design and Assessment (WIDA) Consortium’s English Language Proficiency Standards for English Language Learners” (p. 1). WIDA’s ELP descriptors, the state standards for Illinois, are used in this paper.