

## Environmental Lessons served with Indigenous Spice and a Twist of Innovation

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*Environmental education, part of the current trend towards 'education with a global perspective' (Rosengren, Wiley & Wiley, 1983:5), can be injected into language classes with astounding success. A wealth of readily accessible information on the subject provides a diverse range of ingredients with which to create a plethora of teacher and student 'friendly' materials. A menu of appropriately designed and original materials and activities creates an ideal class atmosphere that is conducive to learning. This paper will explore a range of options and techniques available to all instructors who are interested in the creation of creative and engaging materials, and also offer some sample lessons based on rainforests and indigenous wisdom regarding the environment.*

### INTRODUCTION

As teaching practitioners, we should be driven to make our learners' experiences in the classroom worthwhile and enjoyable. The creative phase of materials development provides us with the ultimate opportunity to make a difference, not only in our learners' educational lives, but also in our professional development as teachers. It can be a very rewarding adventure from the early stages (brainstorming, researching and writing) to the final stage (putting our materials to the ultimate test in the classroom). Ideally, all materials should also be subjected to an evaluation process in order to be as effective as possible (Littlejohn, 1998). Because you know your learners' strengths and weaknesses better than a generic textbook, you can create lessons that cater to a specific group of learners. Designing creative and engaging materials that cater to all four skills (reading, writing listening and speaking) ensure learners are stimulated linguistically. They also lead to an upsurge in motivation levels and boost learners' overall language proficiency. Peaty (1995:34) points out that 'because of their depth and diversity, global issues stimulate discussion, critical analysis and ... the development of linguistic, cognitive and study skills'. Environmental issues are not only topical, but also very relevant to our students' lives.

### Embrace technology

#### The internet as a resource

The teaching profession can gain so much by embracing the internet. It has infinite potential and provides an incredible amount of knowledge on any topic at the mere click of the cursor. This fact alone should not be cause to feel over-whelmed. Just as with the more traditional methods of research, you need to have a clear focus and sift through the streams of information till you find something suitable for your purposes. One website that is especially useful is the Rainforest Action Network (<http://www.ran.org>). It has been created with the view of educating students and, hence, is very student 'friendly'. The Rainforest Heroes Kids' Corner is specifically aimed at young native speakers and the language is perfect for language learners as it is not too over-whelming. The site also includes some wonderful fact sheets and a treasure trove of other useful information that can be used to design some extremely informative lessons. There is also a Teachers' Corner with lots of wonderful ideas and even a curriculum pack that can be downloaded. The materials can be adapted to suit your class needs. A recently added section is the Activist Tool Box which details how to develop and hone campaign skills and media skills; an invaluable resource for university students, in particular. Furthermore, there is an education coordinator who offers excellent support. It is a fascinating journey exploring all that this site has to offer. Not only, can you use it to become inspired and develop some great interactive lessons, but you can introduce it to your learners. One way to do this is to require them to access the site and complete an

activity, whether it be a treasure hunt for specific information or to conduct research on a topic of their choice for a presentation.

### **Online lesson creation**

*Quia* (pronounced *key-ah*) short for *Quintessential Instructional Archive* is an invaluable site that enables teachers to create online activities for their learners. It services a directory of thousands of online activities and quizzes on more than fifty subject areas. The wonderful thing about this site is that you do not have to be a technological whiz to create some worthwhile activities for your learners. You are guided every step of the way with activity creation templates. It is possible to design a whole range of activities including scavenger hunt, rags to riches, jumbled words, hang man, battle ships, concentration, word search and cloze. Tools are also available to create your own class page, online surveys and quizzes. You can create an account and explore the potential of *Quia*'s educational services for a 30 day period on a free trial basis (<http://www.quia.com>). Learners always enjoy and respond positively to the various lessons created at *Quia*. It is an especially useful resource for creating review activities to reinforce previous teaching points, as well as homework assignments.

### **Audio editing software**

Audacity is a free audio editor that was created, and is constantly being updated and improved, by a team of volunteers. With this software it is possible to record sounds and to import and export MP3 files. According to wordIQ.com, an MP3 (MPEG-1/2 Audio Layer 3) is an audio compression algorithm capable of greatly reducing the amount of data required to reproduce audio, without sacrificing the sound quality of the original uncompressed audio track. MP3 files are compact in size and can easily be transferred across the internet, hence their versatility. It is possible to edit sounds using cut, copy and paste (with unlimited undo), mix tracks together, or apply special effects to recordings. Audacity includes built-in effects such as echo, change tempo, and noise removal (<http://audacity.sourceforge.net/>). It is also compatible with all computer platforms. The possibilities of using this free software in creation of materials are endless as Audacity can produce excellent and crystal clear recordings.

### **Video creation**

Teaching materials can also be enhanced by the creation of videos to complement activities. Learners benefit immensely if they can visualise the issue they are studying, hence the significance of visual aids. It is possible to make your own video production if you own a digital video camera or you can even manipulate clips taken from an existing video in order to suit your pedagogical purposes. A variety of video editing software exist, but imovie from Macintosh is by far the easiest to use allowing even a novice to produce high quality and impressive clips. With this extremely useful programme it is possible to edit a clip and to also add pictures, sound, transitions and titles to your video. Furthermore, it is possible to transfer a completed imovie project to iDVD and create your own dvd (digital video disk). You can even add chapter markers and special effects to add a very professional look to your finished product.

### **The final product**

Learners will truly be impressed if there is evidence that some time and thought has been given to the materials they are presented with in class. The use of pictures, clip art, graphs, borders, frames, different fonts and colour (where this is possible) do enhance the look and feel of an activity. The appearance of the handout should by no means over-ride the content, however, in my experience I have discerned that learners tend to respond to nicely presented materials. Just as every good introduction should include a 'hook' to capture the attention of

the reader, a pedagogically sound, well-designed and visually pleasing handout will definitely pique the interest and curiosity of your learners. They actually do appreciate the effort that is invested in the creation of materials for classroom use. Moreover, a teacher who is eclectic in their approach can produce an assortment of useful and effective materials for class use.

## Sample Lessons

### •Rainforests

The design of materials should be geared toward improving the language level of the learners via creative and interactive activities that do not neglect any of the four skills. Ideally, materials should offer learners the opportunity to recycle previously learnt language, or input, and also challenge them with unfamiliar vocabulary, which Krashen (1985) refers to as  $i + 1$ . A learner is much more likely to pay attention in class and benefit, in terms of skills or knowledge, if they find the content relevant and motivating. Because most language learners would have encountered environmental topics in some of their other L1 (first language) classes, it is vital that we design stimulating lessons that impart new knowledge.

The examples that follow were created with data gathered solely from the aforementioned Rainforest Action Network website. A great warm-up, for instance, is a rainforest treasure hunt. Students are each given different and fascinating data related to rainforests written on cards. A few examples include: once a rainforest and its ecosystem is destroyed they cannot be replaced because they have been evolving for 70 to 100 million years; if deforestation continues at the current rates all rainforests will be gone by 2030 and for every quarter-pound fast-food hamburger that comes from the rainforest, 55 square feet of rainforest is destroyed; that is the size of a small kitchen (<http://www.ran.org>). The student's goal is to memorise/summarise the key information on their card and then to exchange their information with other classmates. They are set a time period, twenty minutes, to try and amass as many other facts as possible and take notes of their findings. Learners are encouraged to engage in negotiations with one another in order to check the meaning of any unknown words and the spelling, for instance. After the allotted time for the activity expires, students are informed of the remaining facts that they may not have had time to 'discover' and are then asked to discuss in groups which of the facts surprised them. Students are especially fond of this activity precisely because they are captivated by the content.

They are then introduced to the key concepts of mind maps and asked to create with the data at their disposal from the treasure hunt. According to Tony Buzan (1996, p.84), 'the *Mind Map* harnesses the full range of cortical skills—word, image, number, logic, rhythm, colour and spatial awareness—in a single, uniquely powerful technique.' An integral part of mind maps is the idea of 'radiant thinking' which refers to 'associative thought processes that proceed from or connect to a central point' (Buzan, 1996, p. 57). Because the students all have a variety of information on a central theme, they are able to sift through the range of associations and create a mind map meaningful to them—an excellent introduction to this interesting method of learning to maximize the potential of the brain. It is also important that we pass onto our learners skills that they can apply to other aspects of their education or personal development and growth wherever possible.

The warm-up exercise whets the learners' appetites and makes for a smooth transition to the next activity that involves watching a short video produced by Rainforest Action Network. The treasure hunt activity serves a dual purpose; not only does it 'hook' the learners, but it introduces key vocabulary items that they will encounter in the video. I chose to divide the video in to different sections via the use of imovie editing software and designed an activity for students to complete while watching the video. The pre-viewing activity requires the learners to think about the contents of the film and compose a few questions that they predict might be answered by the film. After this portion of the activity is completed, they watch the film to check whether their questions are answered or not. When they watch the film again they complete an outline detailing the key points. As a wrap-up to the topic (in the following class) the students are assigned to teams and write a series of questions based on the

information they have acquired via the treasure hunt and the film and take part in a quiz. The quiz 'battle' that ensues between the competing teams is energetic, enthusiastic and above all very entertaining.

### •Indigenous-inspired materials

Introducing material based on indigenous views of the environment is highly recommended as indigenous people offer an alternative perspective on ways to protect mother earth. I focus on the teachings and wisdom of the Native Americans, but it would be conceivable to choose any other indigenous group that one is drawn to and find equally compelling words and philosophies that could result in some creative materials. Chief Seattle has become a favourite of many environmental crusaders, and his speech provides a good springboard to the wonderful world of Native American wisdom. An innovative way of introducing Chief Seattle and his speech is to give the students a mini-lecture regarding the background of Seattle and the circumstances that led to the speech. While listening, the learners are encouraged to take notes (it is worth investing time to impart the basics of note-taking to our students as this is a much under-rated, yet useful, skill) of the key points, any new words and any interesting information that they hear. It is a good idea to allow students to compare their notes after the first reading. Asking learners to re-tell the main points of the lecture in a small group by referring to their notes is also a constructive exercise. Once the students are familiar with Chief Seattle, they are ready to listen to his speech. There are several ways of introducing it to the class. One is for the teacher to design a cloze listening. I have discovered that the students enjoy taking part in the creative process and with Audacity, the audio editing software, they can participate in the creation of the lesson. The original speech is quite lengthy, so it is advisable to adapt it. Once this is done, it can be divided into sections and then distributed to learners who have been assigned to groups of four or five, depending on how many segments the speech has been divided into. They then spend time working on the pronunciation of their segment before recording it on Audacity and converting the recording into an MP3 file. This is then sent to the other members of the group, along with their segment that has been transformed into a cloze listening. The group can enjoy filling in the blanks and completing the speech. The completed speech can then be constructed in the correct order and form the basis of a group discussion. Students thoroughly enjoy the sense of responsibility that such an activity entails.

Materials should provide ample opportunities for learners to use the target language to achieve communicative purposes. The following activity is a pair activity based on a Native American prayer and requires learners to cooperate in order to complete the prayer. The students are given the same prayer, but have different words missing. A student can use any means at their disposal in order to communicate the word, without actually saying it, to help their partner guess the word. It is strongly recommended that the learners are provided with some suggested phrases in order to assist them in this process. Some very animated exchanges take place during the duration of this activity. Once the prayer has been completed, the students have an opportunity to look more closely at the prayer in a series of vocabulary exercises. Most learners are extremely intrigued to study and read the words uttered by Native American Indians over two hundred years ago and discover that their messages still ring true today, hence, the warm receptivity given to indigenous-based materials.

### Benefits of content-based instruction

Environmental education comprises merely a strand of the global issues umbrella, but a very important one. A healthy dose of materials based on real issues can capture a learner's imagination and also empower them as language learners, and as global citizens. Brinton, Snow and Wesche (1989) state that 'a second language is learned most effectively when used as the medium to convey content of interest and relevance to the learner' (p. vii). Research conducted in my classes collaborate this view. A majority of learners express their amazement that they could study about such a relevant topic *in English*. They felt that even

though the environment is a topic they have encountered before in their other classes, they appreciated finding out new and fascinating facts in their language class. They also frequently mention the benefits of using the internet as a tool to improve their language abilities. Criticism has been leveled at instructors who do infuse their language teaching with global issues (Cunningham, M., 1991), however, there is little danger of 'preaching' to the learners if you have designed materials that are linguistically useful and worthwhile. You are merely providing material for the learners to interact with in order to improve their language competence and the skills to independently research and think critically.

## CONCLUSION

In conclusion, a teacher should always be attentive and on a continual search for new methods and technologies that can inject a healthy dose of innovation into our classrooms, and especially into the creation of our teaching materials. This endeavour to produce quality materials that address our learners' language needs and captivate their attention has a two-fold effect. Firstly, our students will benefit as they thrive and witness all-round improvements in their language competence. Secondly, we will feel much more satisfied with our roles and contributions to the profession of teaching a second/foreign language. We need to think of ourselves as 'investigative' teachers with a mission to enrich our learners.

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