Using Multi-Dimensional Activities to Improve Textbooks

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Teachers must engage the various combinations of learning styles that exist within our classrooms. We teach visual learners, auditory learners, kinesthetic learners, and other types of learners. Therefore, a multi-dimensional approach to teaching is necessary to stimulate and help all of our students. This approach helps students to achieve not only cognitive, but also sensory and affective experiences of texts. Most textbooks are written for analytic learners. This article explores this situation and offers examples on supplementing textbooks with multi-dimensional activities.

学生の学習方法は個々異なる。同じクラスのある学生は視覚的学習者であるかもしれないし、聴覚刺激によって言語を効果的に習得していく者であるかもしれない。同クラス内に、非言語的情報に最も反応する学生もいるかもしれない。教師はそれらを一人一人の個性として受け止め、考慮していく必要がある。マルチディメンショナル・アプローチとはこの問題を解決するための教授法である。従来の教科書を用いつつ、認知的・知覚的そして情動的な学習の機会を生徒達に与えることにより、彼らの学習の手助けをする。ここでは、多くの教科書が分析的学習者用に構成されている現実を述べると共に、マルチディメンショナル・アプローチによる補助的演習の例をいくつか紹介していく。

Most language teachers and second language acquisition researchers concur that people learn differently, that people have different strengths in perceiving information, and that people are differently motivated. In contrast to this understanding, Tomlinson (1998) discovered in an analysis of many current course books that they were written for "learners with a preference for *studial* learning and an apparent assumption that all learners are equally capable of benefiting from this type of style" (p.17). A tremendous gap between the diverse needs of students and the materials they study with exists. To build a bridge for the students whose learning strengths are not stimulated by textbooks, teachers must learn to improve texts with multi-dimensional activities. Multi-dimensional activities are activities that help students to process, understand, and experience language in a wide variety of ways.

The theory of multiple intelligences Gardner (1993) and theories of learner styles Brown (2000) support the idea that people are different in the ways of perceiving and processing information. A learner-centered approach to

language teaching and materials development also recognizes the diversity and needs of students and the importance of meeting those needs. The web site of the "Open Learning Unit – Douglas Mawson Institute of TAFE" states:

> A learner-centered approach to design and delivery, requires an appreciation of individual differences and an understanding of diversity in the ways people learn…The aim is to explore, develop and use a range of strategies which support the different ways people learn. If we do this well, there will be successful outcomes for all. As a result of heredity, socialization and environmental demands, people tend to perceive information in different ways and process information in different ways.

The last sentence reminds us that within our classrooms, no matter how homogenous the students may appear to be within some educational settings, such as a university in Japan, every student is unique. Every student has his or her own way of interacting with, perceiving, and understanding the information presented by the teacher and other students, as well as information in teaching materials. Unfortunately, the majority of teaching materials on the market were not created with the idea that students learn in different ways.

To facilitate any significant increase in the learning of a language by our unique students, teachers must find various ways of "delivering" the information to them. In other words, teachers must learn about different approaches to using materials. People have different strengths in regards to learning and teachers and teaching materials should help students to use and develop their different strengths. Learning will increase if a variety of teaching techniques and materials are used by teachers.

Brian Tomlinson (2000) argues that for people to understand both written texts and spoken utterances, they must create and understand their own mental representation of the text or utterance. It is the duty of the teacher to facilitate the creation of mental representations. Tomlinson stresses that all learners must do the following**:**

- achieve sensory and affective experience of the text;
- connect the text to our previous experiences of language and of life;
- fill in the gaps in the text to achieve our own continuity and completion;
- relate the text to our own interests, views, and needs.

Second language acquisition researchers have defined and categorized learning styles in numerous ways. This article is mostly concerned with perceptual learning styles. Reid (1987) explains this term as "the variations among learners in using one or more senses to understand, organize, and retain experience" (p. 89). **"**Retaining experience**"** refers to the learning experience, which could be the experience of reading a text, listening to a teacher, following instructions, using grammar structures in a conversation, etc.

Reid further explains that among the perceptual learning styles are four basic types: visual learning, auditory learning, kinesthetic learning, and tactile learning. Auditory learners are students who particularly enjoy or are good at learning from information that is presented via audio tapes or lectures. Kinesthetic learning involves physical responses to language. Total Physical Response is very kinesthetic. The concepts of kinesthetic and tactile learning are very similar in that physical movement facilitates learning. However, tactile learning is more

hands-on learning. It could involve having students making small buildings or cooking. Visual learners are those who enjoy or are very good at learning from visual experiences such as reading, seeing pictures, studying graphs, etc.

Observation of my college students leads me to categorize visual learning into two categories. The first is the category of visual experiences that involve looking at objects and texts that exist in the "real world," the world that is shared by everyone. The second are those visual experiences that take place when language learning experiences interact with memory and/or imagination.

Stevick also believes that materials should appeal to emotional aspects of students. In a list of five desirable qualities that materials should have for the "whole learner," his first point is that, "There should be something for the emotions, as well as for the intellect. That something may be beauty or humor, but it may also be controversy or apprehension. Or beauty and controversy may occur together" (p. 200).

The first step—evaluating the materials

For various reasons, many teachers use textbooks that do not facilitate a multi-dimensional experience. Therefore, teachers must find ways to augment or supplement the inadequate materials. We need to look at teaching materials and ask ourselves what we can do to make texts more useful for visual learners, kinesthetic learners, etc. In addition, we need to consider how we can make the students have a more personal and emotional connection to the text content. The first step to adapting materials for a multi-dimensional learning experience is to evaluate the materials. Look at them closely and ask the following questions:

- How can I facilitate my students having a visual experience with this?
- How can I facilitate my students having an imaginatively visual experience with this?
- How can I facilitate my students having a kinesthetic experience with this?
- How can I facilitate my students having an aural experience with this?
- How can I facilitate my students having a tactile experience with this?
- Perhaps most importantly: How can I facilitate my students having a positive emotional experience with this?

Various examples of extending the range of modalities for commonly taught language items or functions

Visually presenting commonly misspelled words can help learners to notice salient features. This is very useful for pointing out when the letter "l" and the letter "r" are used, since Asian students often confuse these. An example is below:

*"This is a where we put the co**rr**ected papers that we have co**ll**ected."*

Drawing words within the shapes of pictures that show the meaning of words helps to teach the meaning and increase recall. This can be demonstrated by teachers, but students who create their own images will benefit the most. For example:
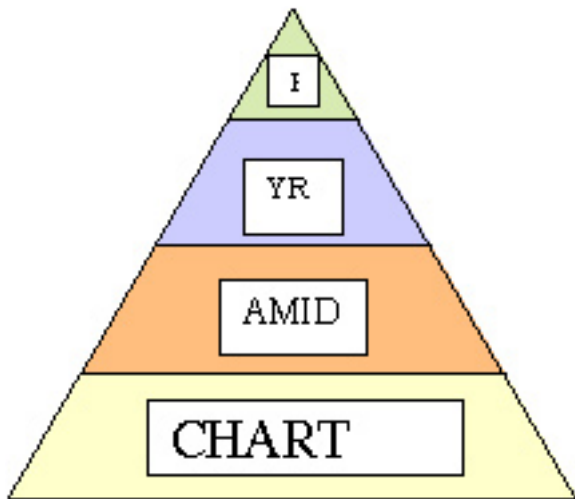
Figure 1. Drawing words within shapes

Kinesthetic teaching activities

Students can learn and remember syllable length and other elements of pronunciation with kinesthetic exercises. One way of doing this to have students put their hands close together in front of their chests. When they speak a long syllable, the move their hands farther apart and when they speak a short syllable, they move the hands closer together. Another way of kinesthetically involving students with pronunciation is to have the students move their hands up and down in the air to represent changes in pitch or rhythm or intonation.

Kinesthetic activities are great for relaxing stressed students, invigorating bored students, and helping students to learn many aspects of language. Having students walk with their fingers on enlarged street maps increases their involvement with listening and speaking activities connected to the topic of directions. Dance type moves also help students to remember words associated with body parts and body movements. Assigning one student in a small group to mime job occupations is a kinesthetic activity that helps students to remember job related vocabulary while providing them with a positive affective experience.

Musical activities

Musical activities can help aural learners with numerous language elements: pronunciation, grammar, vocabulary, collocation, grammar, content knowledge, etc. Music often creates a positive emotional response. Using songs also makes sense linguistically. As Lems (2001) states, "Lyrics are often sung at a slower rate than words are spoken with more pauses between utterances; and there is a repetition of vocabulary and structures" (1). Not too long ago, I had to deal with a very boring section of a conversation text. To make the class more exciting for the students, I used the child's song "Row, Row, Row Your Boat" to teach cooking vocabulary. Students listened to a recording of the original song to refresh their memory of the melody. After that, I provided them with a new version which they sang to the melody of the original version. As they sang, they also moved their hands to represent the verbs in the song. My adapted version of "Row, Row, Row Your Boat" is below:

Chop, chop, chop your onions

Finely on the cutting board

Fry, fry, fry the onions

Deliciously on the frying pan

Mix, mix, mix the eggs

Quickly in the bowl

Pour, pour, pour the eggs

Slowly in the pan

Shape, shape, shape the omelet

Nicely in the pan

Grind, grind, grind the pepper

Coarsely over the omelet

Place, place, place the omelet

Delicately on the plates

Call, call, call your friends

Happily to your table

Visualization activities

Visualization activities make learning a very affective personal and stimulating experience. I have had my students visualize all sorts of content. After visualization activities, they always are bursting with desire to express themselves. As a result, they seek to find and use grammar structures and vocabulary that will help them express themselves. Students close their eyes, breathe deeply and slowly, and listen to the teacher who suggests situations for them to imagine or remember. I have had students visualize their bodies and lives in the future, visualize their hometowns in the past and future, visualize romantic dates and their weddings, and visualize meeting their ancestors who give the students good advice. Last year, I often used visualization activities to rectify a very dull conversation textbook. It had many activities such as the one below:

WRITE THE CORRECT FORM OF THE VERBS
    Fly <u>Flew</u>
    Eat _____
    See _____

Visualizing activities follow a process such as the one described below.

To interest the students in learning and using the verb forms above, I had each student visualize one of the happiest times of his or her childhood. I suggested that they remember the people, the place, the sounds, the tastes of that time. Then, after they returned to the real world of the classroom, they had to ask and answer questions about their visualization. I had previously written the past tense of many verbs on the board, and as students talked they actively scanned the board to find and use verbs that would best help to describe their remembered experiences.

Visualization is also an excellent exercise for reading development. Instead of answering comprehension questions, which tend to be more of a testing nature than a teaching nature, students are asked to imagine the scenes and characters that they have just read about. They can be asked to talk about what they imagined or to draw pictures to represent the text sections. Visualization requires students to process the reading text in a deeper way than answering true or false questions about text content.

Cambell, Cambell, and Dickinson maintain that texts and lectures can be made more visual with the use of graphic representations, which are "visual illustrations of verbal statements**"** (1996 p.104), and written statements. Teachers who use graphic representations along with lectures will support the visual learners. Students can be asked to create or fill in charts and graphs. Transferring information from lecture form or a written text into a visual illustration requires language processing. A very effective way for students to take input and process it as output is to create their own visual representation of what has been taught in the classroom. These can be used as a basis for review by students. Students also benefit when they compare and discuss their visual illustrations.

A very personalized type of visual notetaking is the "mindmap," as explained by Cambell et al (1996 p.106). Mindmaps are excellent tools for organizing ideas, for review, and for brainstorming purposes. They work quite well for reading texts. The student can use pictures as symbols or write words or draw lines. The mindmap represents their understanding of the text. Now might be a good time for the reader of this article to draw a mind map of what she or he has read so far of this article. Please do so on separate piece of paper.
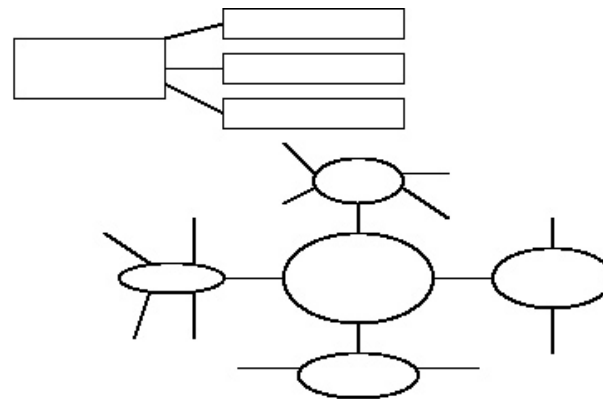

Figure 2. Two examples of graphic representations

Tactile learning involves using the hands during language learning tasks. Some of these tactile learning activities require students to manually complete tasks while communicating with new language structures. Some suggestions for this are cooking, making clay sculptures, and making models, etc. Sets of Cuisinere rods, materials used in the Silent Way teaching method, are very useful. These rods are small and of varying colors. I have had pairs of students work with these. Each student created a small sculpture with the rods and told the other student how to make an exact replica. The students did this with a partition between them so that they could not see each other's sculpture in progress. In an unusual and effective application of a tactile language experience, a colleague of mine told his students to put their hands into bags that contained a rotten banana, sandpaper, a rubber ball, a rock and other objects. Students connected the tactile sensations with vocabulary such as slimy, bouncy, rough, hard, etc.

Facilitating multi-dimensional learning experiences with the average bland textbook requires teachers to use their imagination and to research different ways of teaching. Can teachers create a multi-dimensional language learning experience with each unit of a text and during each class session? That would be very difficult and probably impossible for the teacher, but teachers should endeavor to facilitate some of these experiences in most classes. As teachers' experience and creativity grows, the process of materials adaptation becomes simpler and faster. The increase in student enthusiasm for your classes will be your reward.

References

Brown, H.D. (2000). *Principles of Language Learning and Teaching*. New York: Addison Wesley Longman, Inc.

Cambell, Linda., Cambell, Bruce., Dee Dickinson. (1996). *Teaching and Learning Through Multiple Intelligences*. 104. Needham Heights, MA: Allyn and Bacon.

Cambell, Linda., Cambell, Bruce., Dee Dickinson. (1996). *Teaching and Learning Through Multiple Intelligences*. 106. Needham Heights, MA: Allyn and Bacon

Gardner, Howard. (1993). *Frames of Mind*. New York: Basic Books.

Lems, Kirstin. *Using Music in the Adult ESL Classroom* ERIC Digest National Center for ESL Literacy Education December 2001. Retrieved November 14, 2003, from http://www.cal.org.ncle/digests/music.htm.

Open Learning Unit – Douglas Mawson Institute of TAFE. (n.d.) Retrieved 11/6/2003, http:www.tafe.sa.edu.au/vet_div/iris/best_prac/htm/undrstnd/undtheo/thlrnsty/

Reid, J. (1987). The Learning Style Preferences of ESL Students. *TESOL Quarterly, 20,* 87-109.

Stevick, E. (1980). *Teaching Languages A Way And Ways*. 200. Cambridge, MA: Newbury House.

Tomlinson, B. (1998). *Materials Development in Language Teaching*. 17. Cambridge, UK: Cambridge University Press.

Tomlinson, B. (2000). A Multi-Dimensional Approach. *The Language Teacher Online 24/7*. Retrieved October 11, 2000, from http://www.jalt-publications.org/tlt/articles/2000/07/tomlinson.