A Model of English class with Gifted students in S. Korea
영어수업을 통한 영재의 잠재성 개발

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1. The English Class Objectives for Korean gifted young global leaders

I want to show a simulation of English (ESL) class with the gifted from 5th grade till 9th one in South Korea in the near future, which I want to set up a pilot model of English gifted education with a core curriculum from the 5th till 9th grade. I am not sure that this class model will be successful or not in Korea, but it should be researchedsophisticatedly, because Korean gifted students should get knowledge not only with a totally different language system of English from their native tongue, but also with an entirely different culture-knowledge formation from American gifted students when the knowledge and information to be understood and interpreted. I think, for Korean students, the communication skills are more important than language proficiency itself in order to persuade others or make some solutions out of real problems with others in the multicultural and global situation.

First of all, Korean gifted students should master English language with the training process of memory skills based on the brain function, and then they should further learn multicultural knowledge through the process of their creative and critical thinking. Mastering language proficiency and learning culture-based knowledge are not necessarily acquired with steps by steps procedure, because they are sometimes learned cooperatively, reciprocally, and coincidently.However, it is true that the learning English language should come first in order to get knowledge remembered or memorized through the brain function in the English language system.

2. A stronger link between assessment and intervention in ESL class

No matter how poorly the Stanford-Binet and the WISC fit to assess for the Korean gifted, the model of English gifted education should start with the

assessment of intelligence tests and English proficiency test. It is because Korean gifted students set up a cognitive process training to get the memory lane for English language system to dialogue with and/or translate into Korean through their brain function in order to master English proficiency and culture-based knowledge.

However, the truth is found that cognitive psychologist and neuro-psychologists consider processes an important aspect of assessment and intervention, but the idea of "process training" may be a red flag for gifted educators and school psychologists. When the gifted education legislation was enacted in 2002 in Korea, diagnostic-prescriptive teaching was relatively in vogue in the only subject of math and science. In this model of the English gifted class, we can now diagnose a deficient or weak process and then prescribe training to remediate that process. It is because there is a strong non-separate link between the English gifted assessment and intervention of English language training.

To begin with, at the height of the popularity of the diagnostic-prescriptive model, English reading was still considered a visual-perceptual process, and most process training focused on visual-perceptual or visual-motor integration skills. Vellutino's influential book on dyslexia debunked the myth that reading in English has a visual-perceptual process.

English Reading is a language process, but the prevailing approach to process training at that time did not focus on language, or more importantly, on a language skill relevant to beginning reading, namely phonemic awareness. Research showed that process training of visual-perceptual or visual-motor skills improved those skills but did not transfer to improved reading. Likewise, visual training provided by optometrists may improve visual skills such as tracking, but research has shown that this kind of visual training does not transfer to improve reading either. It was no wonder that a frequently cited review poked holes in diagnostic-prescriptive teaching as it was practiced at the time.

3. Sementic Memory Instructional Strategies

Students are desperatedlytrying to retain the words in their short-term and working memories long enough to pass the test. This is a problem of epidemic proportion when students confront semantic information. When their brains do not process this type of information in different ways to make the neural connections

in the semantic lane, many students try desperately to use the temporary storage processes to get by.

Using what you know about the five memory lanes makes it easier to plan lessons that access the lanes you desire. The most powerful learning comes from using all five lanes in your teaching and learning situations.

Let's look at strategies that are useful for accessing the semantic memory lane. Because the semantic lane calls on working memory, it requires the most effort and is used more consistently in educational settings than the other lanes.

1) Semantic strategies

Semantic memoryoperates word by word, and it uses working memory. Therefore, each learning experience should be organized to present a short chunk of information. The brain must process the information in some way after the presentation of each short chunk. This processing may take many forms. Let's examine some of the devices you can use in your teaching to help students build semantic memories.

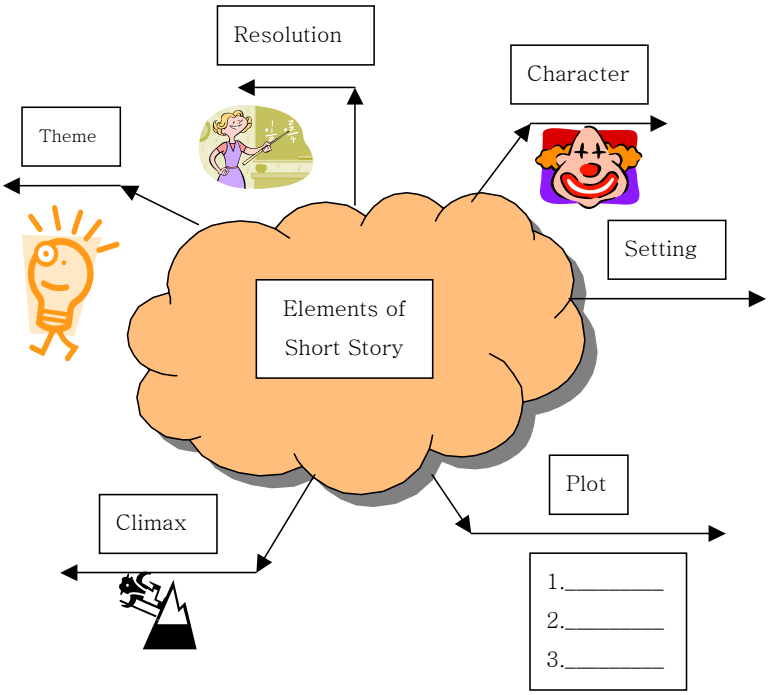
a. Graphic organizers : Mind Map

Graphic organizers can help students retain semantic information. Mind mapping, or webbing, illustrates a main idea and supporting details. I call these devices "power pictures" because they paint such powerful images in your mind. This technique takes concepts and accesses the best memory lane to help you remember and store that information.

To make a "mind map" write an idea or concept in the middle of a sheet of paper. Draw a cloud around it. Then draw a line from the cloud. Using the same color as the color of the line, write a word or phrase to describe or support the central idea or concept. Use the fewest possible words to describe the concept. Then draw a picture or symbol to represent your description. Draw other lines coming out from the cloud in a similar fashion for other ideas or subtopics. The use of a symbol or picture brings emotion into the learning and helps access another memory laneemotional memory to enhance learning.

I use mind mapping when I teach the seven elements of the short story. Using the overhead projector, the class and I create the power picture. My students draw the power picture, or mind map, in their literature notebooks. We have fun creating the pictures and symbols.

Creating mind maps has been a successful strategyfor my students. They remember the seven elements much more readily than they did when I used other methods. Some students may remember the colors; some may remember the words; and some may remember the position of the information on the page.



b. Peer Teaching

Peer teaching is a great way to build interpersonal skills and to review material. Many students love the idea of teaching. Pair up the students and have them take turn teaching the information just covered. This process gives them the opportunity to evaluate and synthesize the material. Evaluating and synthesizing are important higher-order thinking skills.

c. Questioning Strategies

Giving answers and having students create the questions can be an interesting

approach to triggering semantic memory.

d. Summarizing

Summarizing is a processing technique that calls on higher-order thinking skills.

e. Role-Playing

Role-playing and debate can access different memory lanes as students process semantic information.

f. Debates

Many students enjoy participating in and listening to debates. This may not work for all material, but it is a solid strategy for cementing semantic information. If students have to provide proof for their arguments, they are more likely to carefully analyze the information studies. Debating the reasons for the Civil War, character motivation, or alternative problem-solving methods are excellent ways for students to examine and study semantic information.

g. Outlining

Some linear sequential thinkers may benefit from traditional outlining.

h. Time Lines

i. Practice Tests

Practice tests provide opportunities for students to transfer information to test format.

j. Paraphrasing

k. Mnemonic Devices

Mnemonic devices help build memories. Using them puts information into automatic and semantic memories. Peg systems, acronyms, rap, and music are just a few mnemonic devices that can increase memory and retention. They can also be fun.

Using the body as a peg system works for many people. A peg system often makes it easier to memorize a list. For example, if I have to learn 10 prepositions, I can use body parts to help me remember them. Starting at the top of my body, I tell a story, and as I move down my body I use the

prepositions in order:

> When the fly climbed **aboard** my forehead, I noticed that he was **about**two inches from my nose. There was some peanut butter **above** my chin that I was sure he was interested in. I was surprised **after** he flew past my shoulder, **around** my elbow, and landed **beyond** my wrist **on** my hand. Then he buzzed **over** my hip **until** my knee hit him and he rested **under** my foot.

A rhyming peg system works well for me, and it is easy for my students to remember. I always introduce it to my students by first performing a magic feat. They are fascinated by thisability and even more pleased when I explain how it is done.

Vivid visual images are helpful when using a peg system. We discuss how to use this strategy to study vocabulary by using definitions in their visual images. An example would be the word "pachyderm". Its definition is "a thick-skinned animal." If it is the first word on the list (remembering that the peg for one is sun), the students may visualize an elephant in the hot sun sweating so much that his thick skin is falling off! In this way the word and the definition are attached to the peg. The students enjoy creating the "pictures"as they use this mnemonic device.

Acronyms are another mnemonic device. Acronyms are initials of the items you need to know put in a format that is easy to remember. R.O.Y.G.B.I.V. is one I recall from my childhood. It stood for the colors of the rainbow: red, orange, yellow, green, blue, indigo, and violet. Another acronym helped me remember the names of the great Lakes: H.O.M.E.S. stood for Huron, Ontario, Michigan, Erie, and Superior.

Some of the best mnemonic devices are those that some of my students currently use. I have asked them to write down and share their learning techniques. This is a real eye-opener for some students. Most of them know nothing about mnemonic strategies, yet some successful learners have devised similar strategies that, when shared, can benefit everyone. Some students have been "chunking" information into small bits for many years. They then devise strategies that work with their individuallearning styles. For instance, one student places his notes, divided into small chunks, at the end of his pool table. Taking one chunk at a time, he walks around the table and repeats the information until he knows it. Other students tried this, and some found it helpful.

2) Episodic memory strategies

Episodic memory is location driven. Studies have shown that if people receive information in a specific location they will more easily remember it in that sme location. To use episodic memory effectively may take a little thought, energy, and some creativity.

Bulletin boards may be the easiest way to begin to create episodic memories. Changing the arrangement of the classroom before each unit will helpmake the information unique. Field trips add to learning and to episodic memory. Teaching from a specific area of the room will help students use their episodic memories.

3) Procedural Memory Strategies

Setting up procedures in the classroom can help create strong memories. Repetition of procedures is necessary to create a strong long-term memory pathway. Making shadow boxes can enhance procedural memory. Sock-puppet shows can reinforce many concepts in any content area. These procedures not only reinforce semantic knowledge, but they also represent memories that can be stored through those procedural memories that can be stored through those procedural memory "muscles." If you have trouble applying your content to any of these, use your imagination. Have students stand up as you cover specific material. Ask them to walk as you review it, jump when they think they understand a particular point, and clap when they know it all, All of that movement and fun will make a big impression on their brains. Therefore students can invent procedures to support instructional material.

4) Automatic Memory Strategies

The automatic memory lane stores multiplication tables, the alphabet, the ability to decode words, and dozens of other memories triggered by simple associations. Strategies for accessing this memory lane are simple and fun.

Music is one of the most powerful means for enhancing automatic memory. Putting information to music is simple for students of all ages. They usually find songs easy to remember, and they can then practice the information daily. For years I have had students learn the 48 prepositions, 23 helping verbs, and 18 linking verbs by writing their won songs. They use old, tried-and-true melodies, but they make up the lyrics. It can be as simple as taking "Mary Had a Little Lamb" and replacing all of the words with the list of words the students need to remember. Raps and poemscan work as well. It becomes a reflex to fill in the newly learned words when the music begins. I have had students return after high

school and tell me they still know their songs.

Other automatic strategies include the use of flash cards, repetition through daily oral work (in math, geography, language, vocabulary, and so on), and oral conditioning (for example, I say "Lincoln," you say "Gettysburg Address"). Each of these strategies has its own benefits. Students will tire of the same strategy, so provide variety. Quiz shows may be a great way to get responses to the automatic level; many students love this technique.

5) Emotional Memory Strategies

Without doubt, emotional memory strategies are the most powerful. Many of these strategies also activate other memory storage areas that make them even more powerful. Both positive and negative emotions cause the brain to release certain neurotransmitters that aid in memory retention.

Music can be powerful in emotional memory. Using dramatic music as background while you read or discuss material can make the information meaningful. Playing the theme from "Mission Impossible" or "Dragnet" before you discuss the Battle of Gettysburg will get your students' attention and elicit feelings about the material.

Debate and role-playing are effective ways to evoke emotions. Make your room the scene for the crime. If you are studying the civil War, create the emotions felt in the era. Divide your room in half with a Mason-Dixon line. Separate the students and tell them what possessions they can keep. Allow the emotions to build as some lose their belongings and others receive them.

Your own enthusiasm for the subject matter may be contagious. If you share feelings about what you are teaching, your students may find that they can feel the same way about it.

6) Accessing Multiple Memory Lanes

The more aware you are of information about brain-compatible strategies, the more likely you are to use it. Storytelling is a dynamic way of using multiple lanes. The brain processes parts and wholes simultaneously. Putting semantic information into a story format gives the students the whole idea and the details. Besides the semantic information, emotional memory can be tapped through the conflict or plot of the story. Episodic memory may be reached through the location in which you tell the story and how you dress.

Look at the semantic information in the curriculum and try to find ways to

present it through the episodic, automatic, procedural, and emotional memory lanes. Begin with the episodic lane and continue with the procedural lane. Celebrate both the beginning and the end of a unit to add to emotional memory. Ask the student how they feel about the topic to be studied. Have students decorate the classroom to add to their procedural and episodic memories. Offer students choices in their learning. Research procedures may access multiple memory lanes. Daily repetition of important information is a key to building long-term memory. Creating songs with unit content accesses both automatic and emotional lanes. Use student volunteers to reenact or reteach the information. Debates may cement semantic information through the emotional and procedural lanes. You may find that your work becomes more interesting as you make the effort to access and create more memories for your students. Brain research reinforces most of our best teaching strategies.

4. Assessment That Mirrors Instructional Strategies.

Retrieved memories are the only evidence we have of learning. Traditional testing is often necessary and inn some cases desirable. Parents often understand traditional assessment better than authentic assessment. How do we teach and assess in a brain-compatible manner and still get the results we need?

1) Portfolio Assessment

Discovering a child's true interests and abilities may be possible only through portfolios.

2) Performance Assessment

Performance assessments allow students to demonstrate their knowledge and understanding through various means. Authentic assessment is a performance assessment in which a student demonstrates mastery of a task that is considered "real life." Many educators use this type of assessment. The drawback is the time required. Performanceassessments are an important component of assessment that honors the uniqueness of students' brains. Appropriate rubrics enable this kind of assessment to be objective.

3) Episodic memory Assessment

Each memory lane has a compatible method of assessment. Studies have shown that people who are taught information in one place access it more easily in the same place.

4) Semantic Memory Assessment

5) If information is stored in the semantic lane, then giving traditional tests usually works; if the information has not been stored there, your students will under-perform.

5. Suggestions for Promoting Higher-Level Thinking and Problem-Solving

To tap social action, teachers might have students develop an activity that targets social improvement (e.g., raise money for poor or homeless families, volunteer for Habitat for Humanity, the Salvation Army, or similar organizations) (application-social action). Students can interview employees in international business or human service organizations to better understand the concept of global cooperation (application-additive; knowledge-additive). Going a step further, students can ask the individuals to share their perspectives on the rationale for global cooperation for a particular country (application-transformation). Students might make a list of objects in their homes to see which were made in another country (application-contributions) and discuss their feelings about this (analysis-transformation) (e.g., Does global cooperation take away jobs from U.S. citizen? If so, what can students do about the situation?) (application-social action). If most of the items in their homes come from another country, students can explore how this will affect their purchase decisions in the future (analysis-transformation). Students might also categorize the items and make a collage to share with classmates (application-contributions).

Students can also read articles on and write a report abut global cooperation for a specific country (knowledge-additive; application-additive). More specifically, the report should include a discussion of the benefits and shortcomingsof lobal cooperation for that country, along with benefits and shortcomings for the U.S. (analysis-transformation). Students can summarize and analyze trade agreements with such countries as Japan and Mexico (e.g., cars, toys, clothes, and food) (comprehension-contributions: analysis-contributions). Finally, students might analyze and evaluate the benefits of global cooperation from the perspective of wealthy countries versus impoverished countries (analysis-transformation; evaluation-transformation). Ideally, students would share this report/critique with political leaders or decision-makers (evaluation-social action) and /or create their own agreement to share with political leaders or appropriate professionals (synthesis-social action).

6. Conclusion

Korean gifted students have the weakness in their English, so they have to improve their English proficiency first to get some knowledge piled in English. However, they can strongly excel the cognitive training through bilingual education. Gifted educators should trigger their burst of the giftedness according to the brain function for the memory. And cognitive training should be interplayed with and translated into the English language system. Finally I show an example of critical and creative thinking process with the examplary class of "global cooperation" with the strategy of high level of problem solving.