

METHODS OF TEACHING ESOL

Conventional and Non-Conventional Measures in Math



Photo Source: http://www.ct4me.net/math_resources.htm

FLORIDA TEACHER STANDARDS FOR ESOL ENDORSEMENT (2010)

Domain 3: Methods of Teaching English to Speakers of Other Languages (ESOL)

Standard 2: Standards-Based ESL and Content Instruction

- 3.2. a. Organize learning around standards-based content and language learning objectives for students from diverse backgrounds and at varying English proficiency levels.
- 3.2. k. Provide instruction that integrates listening, speaking, reading, and writing for ELLs of diverse backgrounds and varying English proficiency levels.

- ❖ **Standard-based instruction** involves directing students to appropriate learning activities; guiding students to appropriate knowledge; helping students rehearse, encode, and process information; monitoring student performance; and providing feedback as to the appropriateness of the student's learning activities and practice performance" ~Merrill, et al, 1999 (Source: Beacon Learning Center).
- ❖ **Language objectives** define the communication skills (language domains) needed to make the content of a discipline comprehensible (Rohwer & Wandberg, 2005).

SCENARIO

Adapted from Gloria T. Poole (2010)

A model mainstream classroom accommodates ELs by providing them with opportunities to work in integrated groups with their English-speaking peers. In this scenario, a pre-service teacher in a university teacher education program is asked to provide additional support in the lesson. The cooperating teacher introduces an activity by reviewing concepts from the previous day. She demonstrates non-conventional measures in math using hand spans to measure the length of a table in the room. The students are encouraged to estimate the measurement in inches and in feet. They participate in other activities so that the teacher and pre-service teacher are assured that everyone masters the concept. All students are challenged to think critically, and visuals, realia, and bilingual dictionaries are available.

The lesson is on the geometric concepts of perimeter and area. The students create floor models that are measurable by using non-conventional and conventional units of measurement. Most work in small groups, while a few choose to work independently. The cooperating teacher plans to move from group-to-group before selecting students who might need specific assistance. Since the teacher uses good planning techniques, she has various models for measurement at each table. These measures include hand-spans, pencil lengths, squares, and other forms of non-conventional units of

measurement. Some groups use rulers and yardsticks as conventional units of measure. Another more advanced group is selected to go with the pre-service teacher around the school campus to measure and compare various spaces such as the stage in the auditorium, a segment of the hallway, and other designated spaces using both forms of measurement.

The cooperating teacher carefully assigns different levels of tasks for the varied groups based on their academic needs and English proficiency levels. At the end of the activity, students gather to share and record their findings using various principles of cooperative learning by exercising shared leadership through participation in team reflections. They are individually held accountable for their own learning, collectively accountable as a group, and serve as language resources for ELs at varying English proficiency levels.

Discuss the following questions.

- a. What are some advantages for ELs participating in this activity?
- b. What might be some disadvantages, if any?
- c. What indications are there that the pre-service teacher has reasonably good instructional management skills?
- d. What strategies are most supportive of language acquisition and learning for ELs in this activity?
- e. What evidence is implicit that ELs are receiving language input and support for acquisition and learning?
- f. What evidence exists that students might internalize learning as a result of this activity?
- g. Plan a cooperative learning math lesson to teach during your field experience/practicum.

BENEFITS of using Cooperative Learning with ELs:

1. Promotes interaction with classmates which in turn supports language and academic development.
2. Allows ELs to express themselves in small groups.
3. Develops vocabulary and problems solving skills.
4. Supports social and academic skills.
5. Integrates the skills of listening, speaking, reading, and writing.

*Spencer Kagan's strategy of **Cooperative Learning** is described to increase students' academic achievement, self-esteem, social skills, and study skills. It builds student relationships and provides opportunities for all students to work together while learning how to better understand each others' differences. There is an opportunity to use higher level thinking skills and students are held to accountable for their own work as well as equal participation by the group. Cooperative learning provides students with a sense of social orientation to learn workplace skills. However, there are several disadvantages, such as group grades, lack of social skills by some students, and lack of participation by all students.*



Photo Source: <http://blogs.bethel.k12.or.us/aseery/2011/06/22/cooperative-learning-with-kagan/>