
Use of Robert Gagne's model of instructional design for teaching English as a Second Language is illustrated in a unit intended for community college students of varying linguistic and educational backgrounds. Students must be literate in English, have a prescribed level of listening comprehension, and be familiar with certain English vocabulary and grammatical structures. Lessons focus on one aspect of the simple English sentence: syntax of adverbials following noun and verb phrases, a rule not commonly made explicit in grammar classes or texts. The unit consists of 4 lessons and uses a variety of techniques and materials, including videotapes, felt board activities, and paper-and-pencil exercises. Student learning falls into Gagne's domains of verbal information and intellectual skills. The final examination is a 15-item test of unfamiliar broken sentences in which students must place adverbials in sequence. The unit description includes a flow chart for organizing instruction and specific classroom techniques, including suggestions for gaining student attention, informing the learner of the lesson objective, stimulating recall of prior learning, presenting the stimulus material with distinctive features, providing learning cues, eliciting performance, providing informative feedback, assessing performance, and enhancing retention and transfer. (MSE)
AN APPLICATION
OF GAGNE'S THEORY OF INSTRUCTION
TO THE INSTRUCTION OF ENGLISH AS A SECOND LANGUAGE

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Introduction

Gagne's instructional model has received considerable attention by instructional technologists. However, individuals attempting to instruct second language learners have made little use of Gagne's instructional design model. The instruction of non-native speakers is interdisciplinary in nature and could potentially benefit from models and research from such ancillary areas as instructional technology. The intent of this paper is to illustrate how Gagne's model can be used for the instruction of an E.S.L. (English as a Second Language) lesson.
Who is the audience?

This macro unit has been specifically designed for community college students of English as a Second Language (E.S.L.). Students enrolled are of varying ages (i.e., 17 to 70), linguistic backgrounds (e.g., Greek, Korean, Persian), and educational backgrounds (e.g., 4 years to 20 years of formal education), yet their goals are the same: to function with maximum proficiency in the English language. Because students in this particular course are intermediate level ESL students, we can assume the following:

1) Students are literate in English.

2) Students have a working vocabulary of approximately 3,000 words.

3) Students' listening comprehension skills are adequate to understand all oral English instructions necessary for these lessons.

4) Students have a basic knowledge of English grammatical terms including the terms "adverbial," "noun phrase" and "verb phrase."

5) Students understand that a simple English sentence must consist of at least a noun phrase and a verb phrase.

6) Students must comprehend the meanings of the following vocabulary:

   A) manner, frequency, purpose, time, place

   B) where, when, why, how, how often

   C) Forty high-frequency adverbials (e.g. once in a while, from time to time, on purpose)
What is the subject matter?

The enclosed macro lessons focus entirely on one aspect of the simple English sentence: the syntax (i.e., sequence) of adverbials which follow the noun and verb phrases. As a result, students will first learn the 5 adverbial types (i.e., TIME, PLACE, MANNER, FREQUENCY and PURPOSE adverbials), and the rule which specifies their sequence (i.e., PLACE + MANNER + FREQUENCY + TIME + PURPOSE).

It should be noted that this syntax rule is not commonly taught or found in existing commercial materials. It was generated as a result of performing a linguistic analysis upon the English language by using the methods and procedures which are usually used to derive rules from an unknown language.

Why is it necessary for the learners to learn this material?

Students enrolled in the courses at the community colleges are for the most part immigrant students, students who must learn English as rapidly as possible in order to function in this country and society. Furthermore, proficiency in English is essential for a purely practical reasons (e.g., employment). Often students cannot support their families on the low wages earned from jobs which require few linguistic skills, therefore, to improve their economic situation, they must learn English. However, a knowledge of isolated vocabulary and phrases alone is inadequate. Students must be able to construct sentences which will allow them to be clearly understood and accepted into the mainstream. It is often the case that intermediate students have a large inventory of vocabulary and adverbial expressions, but do not know how to combine and properly sequence them in the English sentence. As a result they produce sentences which are often difficult to comprehend.
This macro unit was designed in an effort to rectify this situation. By completing these lessons, the student will learn the adverbial rule and be able to correctly sequence adverbials in an English sentence.

What is the general approach and context?

Students will complete the material contained in these 5 lessons over a two week period. Two lessons, which require 60 minutes each, will be presented each week. Additional practice will be provided in the form of written homework.

Instruction will build upon the learner's previous knowledge of English adverbials, question words and function words. Students will be taught how to identify each adverbial in terms of the question words (e.g. WHERE) and adverbial types (e.g. PLACE) in preparation for the rule which states the preferred order in terms of adverbial types.

The approach will involve using a variety of different techniques and materials. First, learners will learn of the importance of this rule by viewing a video. Later, they will be presented with example sentences and exercises which have been extracted from magazines and newspapers. An occasional sentence will be somewhat humorous. So that the elements of the sentences can be easily manipulated, use will be made of a felt board and Velcro-backed cards containing adverbials. To further practice and test the learners' performance, paper and pencil activities resembling the felt board activities will also be used.
Outline and organization of content

The structure and content of this macro unit was based upon the Gagne-Briggs model of instruction. In keeping with Gagne's 5 categories of Learned Capabilities and given the terminal objective of these macro lessons, student learning falls into the domains of verbal information and intellectual skills.

Gagne's subcategories of intellectual skills also dictates the sequence in which these lessons have been organized. They progress from the lowest to the highest levels of intellectual skills, passing thru what Gagne refers to as discrimination, concrete concepts, defined concepts and rules. Please see the learning analysis on page 9.

Lesson # 1

In this lesson, students will be taught defined concepts which are necessary for subsequent rule instruction. Students will learn how each adverbial answers and therefore corresponds to specific question word (i.e., WHERE, WHY, WHEN, HOW, HOW OFTEN).

To show their comprehension of these concepts, students will classify each adverbial according to the question word which corresponds to it. Students will be administered tests which consist of 10 adverbials and five boxes, each of which is labeled with a question word. Students will be required to write the adverbials in the appropriate boxes with 100% accuracy without using any notes or materials and within a time limit of 3 minutes.
Lesson # 2

Once the first group of defined concepts have been firmly established, the students will be presented with a second series of defined concepts. Lesson 2 builds upon the students' understanding of the relationship between question words and adverbials, and defines the various adverbial types (e.g., TIME, MANNER, PLACE, REASON, FREQUENCY) in terms of question words (e.g., TIME adverbials answer the question WHEN).

Students can demonstrate their comprehension of these new defined concepts by classifying adverbials by adverbial type. The lesson test will consist of 5 boxes labeled with the various adverbial types and a list of 10 adverbials. Students will be required to write the adverbials in the appropriate boxes with 100% accuracy without using any notes within a 3 minute time period.

Lesson # 3

Students will learn the adverbial sequence rule (i.e., how each of the adverbial types are sequenced in the English sentence). By the end of this lesson, students will be able to state the adverbial sequence rule. Students will be given a test which requires the learners to write out the adverbial sequence rule within 1 minute without reference materials of any kind. Because the rule is either correct or incorrect, this test will be graded on a pass/no pass basis. A pass grade is required to continue on to the next lesson.
Lesson # 4

Students will learn how to apply the adverbial sequence rule covered in the previous lesson. By the end of the lesson students will be able to demonstrate that they can use the rule by correctly sequencing English adverbials when they are randomly organized in what will be referred to as "broken sentences." (e.g., I went the other day to buy some bread to the store.)

Students will be administered a test which consists of 10 items, each of which are "broken sentences" which the students have never seen. Students will sequence the adverbials (i.e., write the adverbials in their proper sequence) within a period of 10 minutes. No additional books or materials may be used during the testing. A score of 90% is required before the student is permitted to take the final exam.

The final exam will contain fifteen items in the same format described in Lesson 4. The time period specified will consist of 15 minutes. A score of 90% is required in order to establish that the objective of the macro lesson has been met.
OBJECTIVE: Given 15 new "broken sentences" demonstrate the adverbial rule by sequencing the adverbial elements within a 15 minute time period with 90% accuracy without referring to a written form of the rule.

Demonstrate the rule by properly sequencing adverbials

State the adverbial rule

Classify adverbials by adverbial type (e.g., TIME, PLACE, MANNER)

Classify adverbial by information word (e.g., WHEN, WHERE, HOW)
PREREQUISITES:

1) Literacy in English.

2) Students have a working vocabulary of approximately 3,000 words.

3) Students' listening comprehension skills are adequate to understand all oral English instructions necessary for this lesson.

4) Students have a basic knowledge of English grammatical terms including the term "adverbial."

5) Students understand that a simple English sentence must consist of at least a noun phrase and a verb phrase.

6) Students must comprehend the meanings of the following vocabulary:

   A) manner, frequency, purpose, time, place
   B) where, when, why, how, how often
   C) Forty high frequency adverbials (e.g. once in a while, from time to time, on purpose)
FLOW CHART

START

5 QUESTION WORDS THAT CORRESPOND TO ADVERBIALS

TEST

yes

no

5 ADVERBIAL TYPES

TEST

yes

no

ADVERB SEQUENCE RULE

TEST

yes

no

RULE APPLICATION

TEST

yes

no

WRITTEN EXAM: GIVEN "BROKEN SENTENCES", SEQUENCE ADVERBIALS ACCORDING TO ADVERBIAL RULE

no

PASSED EXAM?

yes

no

END
1. Gaining attention

To gain the students' attention and to demonstrate the need for learning syntax rules, students will be shown a video tape which was funded by a grant from the California Community College fund for Instructional Improvement.

Students will view a scene in which a colorfully dressed man is approached by an equally colorful monster. When the man attempts to explain his encounter with the monster to a policeman, he has difficulty being understood because his adverbials are not properly sequenced. Once the man takes the time to properly organize his adverbials, he is able to make himself understood and the policeman pursues the monster.
2. Informing the learner of the lesson objective

The teacher will say the following: "By the end of this lesson, you will be able to properly sequence sentence adverbials when you find them like this. (Teacher points to a "broken sentence" on the felt board.) "You will be able to do this without using any materials."
3. Stimulating recall of prior learning

There are three basic concepts which need to be reviewed at this point to prepare the learner for Event 4.

A) The teacher stands before the class. "Adverbials cannot appear in any order in the English sentence. There is a rule adverbials follow. Do you remember that rule? Write it on your paper." After all have finished writing, the teacher provides the answer and students are encouraged to make corrections and ask questions.

B) The teacher continues. "We use question words to help us identify the adverbial types like TIME, MANNER, FREQUENCY, PURPOSE, PLACE. What question word helps us identify TIME adverbials?" Students write their response on a sheet of paper. The teacher continues similarly with each adverbial type. After all have responded in writing she goes over the answers.

C) Finally, the teacher says, "Here is an adverbial." The teacher holds a Velcro card containing in the summer. "What question does this answer?" Students respond, "WHEN." "So what type of adverbial is it?" Students chant, "TIME." "Yes, it's a TIME adverbial."

The teacher provides assistance if there are difficulties. She repeats the process, providing several more examples of adverbials from each adverbial type.

To provide more individualization for this group situation, the process is repeated, but students respond in writing rather than orally.
4. Presenting the stimulus material with distinctive features

The teacher stands before a felt board which is divided by a line which passes down the middle. To the left is a broken sentence with each of its elements on Velcro-backed cards. To the right is a blank working space. "Let's imagine once again that the adverbial rule is written along the top of this blank area." The teacher states each element of the rule while placing her hand at a specific location along the top of the board.

"Now I will take each adverbial from the broken sentence and determine where it should go on the board. Let's see (holding adverbial card). This is a TIME adverbial because it answers the question WHEN. I'll place it in the space directly below the TIME category." She points to space allocated for TIME adverbials, then places the TIME adverbial below.

The process continues with each adverbial from the broken sentence until all have been properly placed.

"Now let's check our work." She goes thru each adverbial and double checks to be sure each adverbial has been properly placed. "Now I'm confident that I have a well-formed sentence."

The teacher repeats this same process several times with 6 to 8 additional broken sentences.
5. Providing learning guidance

For this event, the teacher points out the "critical attributes" of the concept/rule" with her "verbal cues."

The teacher calls on one student to come to the felt board where she takes him through the same procedure used in Event 4. Others are encouraged to help him.

"Yannis, why don't you try to organize the adverbials in the same way I did."

"Do you remember the adverbial rule? What is it? Show me by reciting each element of the rule and placing each of these in a space at the top of the board."

"Here is your first adverbial. What type is it?" Once the student has correctly identified the adverbial type, she encourages him to place it under one of the adverbial types. This process continues until each of the adverbials are placed on the board and the student has double-checked his work as the teacher did in Event 4.

Different students are selected to correctly sequence 6 to 8 additional broken sentences.
6. Eliciting the performance

Students will be required to sequence the adverbials of 5 broken sentences which appear on their papers. To the left will be the broken sentence and to the right, a space in which to organize it. These sentences will be new to the learner and will not have been seen previously in any of the example sentences thus far.
7. Providing informative feedback

After completing the paper and pencil activity mentioned in Event 6, students will be provided with answer sheets for these 5 problems. The answer sheets will be detailed and informative such that each adverbial will be clearly labeled with the correct adverbial. Furthermore, students will see how each of these particular adverbials are organized according to the rule which will be restated for each problem. Thus students will have the opportunity to quietly and calmly determine the origin of their errors and make corrections accordingly.

Students who did not master the material, that is, those who received a score of 3 or less will receive remedial instruction from a tutor who will take the learner once again thru the same procedures described in Events 3 thru 7.
8. Assessing performance

In order to determine if the students can "consistently perform", they are tested using the same types of paper and pencil activities described previously in Event 6. The test consists of 10 broken sentences which need to be properly sequenced according to the adverbial rule. These sentences consist of "new instances", that is, previously unseen sentences. Mastery will be established if 90% of the items have been answered correctly within the established time limit of 10 minutes.
9. Enhancing retention and transfer

To conform to Gagne's requirement of using review questions at "spaced intervals," two steps will be used. Once a week, during the first 5 minutes of class, the teacher will first re-state the adverbial sequence rule, then place 3 to 5 broken sentences on the blackboard. Students will be asked to individually write out the correct sequence of the adverbial elements on a sheet of paper. The teacher will then go over the answers and offer to help if there is any confusion.
1. The term "adverbial" is used here to refer to any one-word or multiple-word strings which function in an adverbial capacity.

2. Reference is being made to post noun phrase and verb phrase adverbial order only.

3. The time required for each lesson may vary slightly depending upon the content of the lesson. The lesson which has been discussed in this paper, Lesson 4, is expected to last sixty minutes. An estimated schedule for Lesson 4 is as follows:

| Event 1 - Gaining attention | 5 minutes |
| Event 2 - Informing the learner of the lesson objective | 1 minute |
| Event 3 - Stimulating recall of prior learning | 6 minutes |
| Event 4 - Presenting the stimulus material with distinctive features. | 18 minutes |
| Event 5 - Providing learning guidance | 10 minutes |
| Event 6 - Eliciting the performance | 6 minutes |
| Event 7 - Providing informative feedback | 4 minutes |
| Event 8 - Assessing performance | 10 minutes |
| **TOTAL TIME** | **60 minutes** |

4. It is assumed that the students possess the necessary motor skills to manipulate the cards on the felt board.

5. Verbal information is a supportive prerequisite to the essential prerequisite of intellectual skills.

6. Mention should be made of the sequence in which the two defined concepts are taught. Since adverbial types are defined in terms of question words, it seemed logical that the classification of adverbials by question word would precede the classification by adverbial types.
7. The prerequisite skill of discrimination was not included in this learning analysis since it is assumed that these adult learners are able to discriminate at a very elementary level between letters of the alphabet.

8. The objective stated in Event 2 was intentionally simplified for this particular group of learners. For these learners, excessive detail hinders rather than promotes learning.

9. According to the flow chart, those students not passing the final exam will be given another opportunity to learn the adverbial rule and apply it before re-taking the final exam. A decision was made to re-enter the flow chart at this particular point and not earlier since 100% mastery of the previously learned defined concepts was required. Furthermore, based on past experience, difficulties arise at the rule level and not earlier.

10. It is also assumed that students fully comprehend the relationship between the 5 information words and the vocabulary words of TIME, MANNER, PLACE, FREQUENCY, PURPOSE. Thus students are able to classify information words by their corresponding adverbial type prior to beginning these macro lessons.

11. Strict time limits for lesson tests are intentional. The targeted adverbial rule must be accessible to the learners and quickly retrieved from memory in order to be of any value to the learner.
APPENDIX A

ADVERBIAL SYNTAX RULE

Rule:

Adverbials following noun and verb phrases should be organized in the English sentence as follows:

PLACE + MANNER + FREQUENCY + TIME + PURPOSE

Examples:

John eats in the cafeteria everyday at 5 P.M. because he has a class at 6 P.M.
NP VP PLACE FREQUENCY TIME PURPOSE

My father goes to Japan every year in order to promote the product.
NP VP PLACE FREQUENCY PURPOSE

Susan speaks rapidly when she is nervous.
NP VP MANNER TIME