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ABSTRACT

The author attempts a reclassification of structural pattern drills, taking into account the theories of Skinner as well as Chomsky on language learning. Her intent is to propose a "systematic progression in the classroom from mechanical learning to the internalizing of competence." Drills could be used more efficiently in foreign language teaching if they were analyzed in terms of (1) expected terminal behavior, (2) response control, (3) the type of learning process involved, and (4) utterance response. Drills are classified (as mechanical, meaningful, and communicative) and discussed, using illustrations in English and Thai. (AMM)

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STRUCTURAL PATTERN DRILLS: A CLASSIFICATION

by

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This paper attempts a reclassification of structural pattern drills, taking into account the theories of Skinner as well as Chomsky on language learning. My intent is to propose a systematic progression in the classroom from mechanical learning to the internalizing of competence.

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The basic core of the audio-lingual method of teaching foreign languages is drills: pronunciation drills, vocabulary drills, but most of all structural pattern drills. This emphasis on drills reflects the beliefs about the nature of language and of learning by the advocates of this method. Wilga Rivers has examined these assumptions and a quick glance at the table of contents¹ tells us what they are:

- 1) Foreign-language learning is basically a mechanical process of habit formation. Corollary 1: Habits are strengthened by reinforcement. Corollary 2: Foreign-language habits are formed most effectively by giving the right response, not by making mistakes. Corollary 3: Language is behavior and behavior can be learned only in inducing the student to behave.
- 2) Language skills are learned more effectively if items of the foreign language are presented in spoken form before written.
- 3) Analogy provides a better foundation for foreign language learning than analysis.

Small wonder then of the emphasis on drills in the classroom. By what other method could one teach a set of spoken habits by inducing the students into active habit formation with a maximum opportunity for immediate reinforcement and with a minimum opportunity for making mistakes? Indeed, one might wonder how people learned languages before the audio-lingual method.

The plethora of various types of drills is overwhelming. To give but a few examples, Brooks lists twelve types: repetition, inflection, replacement, restatement, completion, transposition, expansion, contraction, transformation, integration, rejoinder, and restoration.² Finocchiaro describes eleven pattern practice activities under their "commonly agreed upon names": substitution, replacement, paired sentences, transformation or conversion, expansion, reduction, directed practice, integration, progressive replacement, translation, and question-answer.³ Dacanay claims that there are basically four kinds of

drill activity: substitution, transformation, response, and translation, but with a variety of subtypes which are: simple substitution, correlative substitution, moving slot substitution, transposition, expansion, transposition with expansion, reduction, integration, integration with transposition and reduction, comprehension check-up, short answer, short rejoinder, choice questions, patterned response and five types of translation drills.⁴

All this is not very helpful to the language teacher who surely must wonder what he is to do with it all. Furthermore, these assumptions of language learning on which the drills are based have been challenged by the transformational-generative grammarians⁵ who believe that language learning involves internalizing a complex system of rules -- by innate propensities for language acquisition-- which will generate all and only the grammatical sentences of a language. T-G grammatical theory distinguishes between competence, the intuitive knowledge of this complex system of rules, and performance, the actual utterance. "Acceptable performance is not possible while competence is defective. Practice in performance in the classroom is practice in generating new utterances, not in parroting utterances produced by the teacher."⁶

At this point I would like to propose a theoretical classification of structural pattern drills which attempts to incorporate both the theories of Chomsky and Skinner. The proposal does not contain any new data, but rather reinterprets old data in light of new theory in order to provide a more efficient working model for the classroom.

When one talks about language learning, one really is talking about the concatenation of two separate areas, the system of language and the process of learning. Rivers, reviewing the writings of Skinner, Osgood, Chomsky, Lashley, and Miller, Galanter and Pribram, points out that they all seem to

agree that there are probably at least two levels of language: mechanical skill and thought.⁹ These levels seem to correlate with what Kazona has found in his experiments on learning by two methods: a "direct practice" and a "method of understanding" or as Rivers rephrases "a mechanical level and a level which involves understanding of how one is learning and the essential elements of what is being learned".¹⁰

If language involves more than one level and there are two types of learning, then this should be reflected in the nature and use of drills. In fact, with the judicious use of drills, we should find the answer to the constant plaint of the language teacher: "How can I make my students express their own ideas, using those language patterns they have memorized so laboriously?"

My contention is this. Given the plethora of different kinds of drills, we could use these drills more efficiently in our teaching if we analyzed them in terms of (1) expected terminal behavior, (2) response control, (3) the type of learning process involved and (4) utterance response. I suggest that basically there are three classes of drills: mechanical, meaningful, and communicative. There is no such thing as a more meaningful drill; either a drill is meaningful or it is not. However, there are gray areas between the classes, and they are of two kinds. One is a mixed drill where the cue in a chain-drill or a three-step drill may be mechanical and the response meaningful, and the other where a knowledge of the structural class (as in a moving slot substitution drill) may be sufficient.

A mechanical drill is defined as a drill where there is complete control of the response, where there is only one correct way of responding.

Because of the complete control, the student need not even understand the drill nor necessarily pay attention to what he is doing. The most extreme example of this type of drill is repetition and mim-mem. Substitution drills lend themselves particularly well to this:

Example: $\overset{+}{\text{Poom}}$: $\overset{3}{\text{nakrian}}$ $\overset{+}{\text{Poom}}$
 suun : $\overset{3}{\text{nakrian}}$ suun
 $\overset{2}{\text{uan}}$: $\overset{3}{\text{nakrian}}$ $\overset{2}{\text{uan}}$

Continue the drill:

1. $\overset{+}{\text{naaw}}$
2. $\overset{3}{\text{Poom}}$
3. dii
4. $\overset{2}{\text{suay}}^{\text{ll}}$

I don't know how many readers know Thai, but I do know that you could all successfully complete the drill. There is complete control of the response.

The expected terminal behavior of such drills is the automatic use of manipulative patterns and is commensurate with the assumption that language learning is habit formation. It involves the classical Skinnerian method of learning through instrumental conditioning by immediate reinforcement of the right response. Learning takes place through analogy and allows transfer of identical patterns. This is clearly the mechanical level of learning, and this class of drills provides practice in mechanical associations such as adjective-noun agreement, verb-endings, question-forms and the like. This is a very necessary step in language learning, and as long as the student is learning, he won't mind the mechanical nature of the drill. The teacher needs to remember that the student can drill without understanding and to make sure that in fact he does understand. Because of the response-control, it is eminently suited for choral drills.

However, much of the criticism against the audio-lingual method is based on the mechanical drill or rather on the over-use to which it has been put. Drilled beyond mastery¹² of the pattern, it induces tedium and a distaste for language learning. Lambert¹³ points out that motivation is one of the prime factors in successful language learning, and we simply cannot afford student distaste. Furthermore, "it has been demonstrated that there is a limit to the amount of repetition which is effective for language learning"¹⁴ i.e., overuse of mechanical drills is not efficient teaching.

While not denying the need for mechanical drills, we may note that on the mechanical level alone, the student certainly cannot yet express his own ideas fluently. He now needs to work through a set of meaningful drills:

Association/Fixed reply¹⁵

- | | |
|--------------------------------|-----------------------------------|
| 1. Teacher: for five years | Student: How long did he (study)? |
| 2. Teacher: during March | Student: When did he (register)? |
| 3. Teacher: until four o'clock | Student: |

In a meaningful drill there is still control of the response (although it may be correctly expressed in more than one way and as such is less suitable for choral drilling) but the student cannot complete the drill without fully understanding structurally and semantically what he is saying. You might say there is a built-in test design. There is a choice involved in his answer, and the criterion he uses in answering often is given to him; the class supplies him the information. Comprehension-type question and answers based on assigned readings fall in this class.

Teacher: What time did John come to school?
Student: John came to school at 9 o'clock.

as well as much "situational" teaching:

Where is the book?
It's on the table
Where is the chalk?
It's in the box.

If the teacher is unsure of whether a drill is mechanical or meaningful (the borders are not completely clear), he can test it with a nonsense word.

Example:

I walk to school every day.

Cue: run Response: I run to school every day.

Teacher: skip

Student: I skip to school every day.

Teacher: somersault

Student: I somersault to school every day.

Teacher: boing

Student: I boing to school every day.

Now do it in Thai.

Example: Can d⁺oen pay ron³rian Tuk wan

Cue: wi⁺ Response: Can wi⁺ pay ron³rian Tuk wan

Teacher: k[']radoot Student: Can k[']radoot pay ron³rian Tuk wan

Teacher: tii lar kaa Student: Can tii lar kaa pay ron³rian Tuk wan

Teacher: boing Student: Can boing pay ron³rian Tuk wan¹⁶

Those are mechanical drills. But in the drill on prepositions above, no native speaker could ever answer "Where is the boing?" for the simple reason that he does not understand it. It is a meaningful drill. Complexity of pattern is not an issue.

Example: John kicked the door.

The door was kicked by John.

Cue

Response

The dog bit the man.

The man was bitten by the dog.

The boing boinged the boing.

The boing was boinged by the boing.

That is a mechanical drill. For the language teacher who is fluent in the target language, it is difficult to appreciate the enormous difference in difficulty by these two classes of drills.

A word of caution. Sometimes a drill will seem meaningful when it really isn't.

| | |
|-----------|-----------------|
| Teacher | Holds up a book |
| Student 1 | What is this? |
| Student 2 | It is a book. |

Meaningful or mechanical? Well, it depends on what you are teaching. If you are teaching the structural patterns: Question word/thing + be + demonstrative pronoun/thing and personal/thing + be + Np it is one of the mixed class drills I mentioned earlier. Student 1 does not have to understand anything as long as he says "What's this?" Student 2 has to understand in order to answer. However, this may be a vocabulary drill (we surely don't teach structural patterns and vocabulary at the same time) and that easily confuses the classification of the drills. Vocabulary by definition has lexical meaning and so does not fit into this classification of structural pattern drills.

It will be noticed that in the meaningful Q-A drills above the long answers were given. The expected terminal behavior has not changed. We still want an automatic use of language manipulations; we are still working on habit formation. But the method is different. The drill should be preceded by analysis on the characteristics of the language pattern -- be it inductively coaxed out of the students or explained by the teacher. Unless the student understands what he is doing, i.e. recognizes the characteristic features involved in the language manipulation, he cannot complete the drill. There still is a right response (we have supplied facts and information) but we allow a bit of trial-and-error process in finding it.

But there is still no real communication taking place. Students have a tendency to learn what they are taught rather than what we think we are teaching. If we want fluency in expressing their own opinions, then we have to teach that. The expected terminal behavior in communicative drills is normal speech for communication or, if one prefers, the free transfer of learned

language patterns to appropriate situations.

In a communicative drill there is no control of the response. The student has free choice of answer, and the criterion of selection here is his own opinion of the real world— whatever he wants to say. Whatever control there is lies in the stimulus. "What did you have for breakfast?" is likely to limit the topic to the edible world but not necessarily. "I overslept and skipped breakfast so I wouldn't miss the bus," is an answer I have heard more than once. It still remains a drill rather than free communication because we are still within the realm of the cue-response pattern. The main difference between a meaningful drill and a communicative drill is that the latter adds new information about the real world. All of us have seen a meaningful drill turn communicative when the students suddenly took the question or cue personally and told us something about himself that we did not know from the classroom situation. "I have three sisters" is communicative, but "My shirt is red" is merely meaningful; that information is supplied by the situation, and I can see it as well as the student.

Language teachers have always used communicative drills in the classroom (where else is one asked such personal questions as "Did you brush your teeth this morning?") but my point is that there should be an orderly progress from mechanical drilling through meaningful to communicative drills, that the teacher should know one from the other, and that one should not rely on chance that the students will turn a drill into communication.

Communicative drills are the most difficult to arrange within the classroom. They can of course never be drilled chorally. Still, if we want fluency in expressing personal opinion, we have to teach that. One way of working with communicative drills is to structure the classroom activity so that it simulates the outside world of the students and to work within this

I am suggesting that any amount of mechanical drills will not lead to competence in a language, i.e., fluency to express one's own opinions in appropriate situations.

To summarize, in language teaching we ought to classify the drills we use into three classes: mechanical, meaningful, and communicative in order to reach free communication. We then need to proceed systematically, not leaving out any one step. Mechanical drills are especially necessary in beginning courses and in learning languages markedly different from the native tongue, such as Thai is for me. I do not believe that this is the only way of teaching languages because it patently is not. Rather, given what we know about languages and learning today, this classification of drills will provide for more efficient language learning.

The limitation of this classification is that it only fits structural pattern drills. By definition, vocabulary involves meaning and thus cannot exist on a mechanical level only. Pronunciation drills are frequently carried out in nonsense syllables in order to concentrate the better on the sounds; pronunciation of segmental phonemes does not necessarily involve meaningful utterances.

FOOTNOTES

1. Wilga M. Rivers, The Psychologist and the Foreign Language Teacher (Chicago: University of Chicago Press, 1964), pp. vii-viii.
2. Nelson Brooks, Language and Language Learning (New York: Harcourt, Brace and World, 1964), p. 156.
3. Mary Finocchiaro, English as a Second Language: From Theory to Practice (New York: Regents, 1964), pp. 60-65.
4. Fe R. Dacanay, Techniques and Procedures in Second Language Teaching (Dobbs Ferry, New York: Oceana Publications, 1963), pp. 107-151.
5. For a succinct discussion, which reviews the literature and sums up the major points, see Wilga M. Rivers, Teaching Foreign Language Skills (Chicago: University of Chicago Press, 1968), pp. 64-67.
6. Rivers summarizing the implications for foreign language teaching based on T-G principles. Teaching Foreign Language Skills, p. 67.
7. I want to express my gratitude to my students in "Techniques and Procedures in TESOL," especially Mary Newton Bruder, Walter Davison and Frank Giannotta for their contribution to the development of the classification and the zeal with which they have tested it in their teaching. Whatever inadequacies remain are entirely my own.
8. See e.g. Brooks, Language Learning.
9. Rivers, The Psychologist and the Foreign-Language Teacher, 47. Not to be confused with structural versus semantic meaning.
10. Rivers, The Psychologist and the Foreign-Language Teacher, 50.
11. Edward M. Anthony, et al., Foundations of Thai Book 1 Part 1 (University of Pittsburgh, 1967), p. 31.
12. An operational definition of mastery of a pattern at this level might be when a student can run through a drill without paying attention to what he is saying. To illustrate, I remember sitting by the window, watching the futile efforts of a policeman to control Lima traffic, thinking about the menu for tomorrow's party, all the while loudly and clearly running through Spanish verb endings. The dinner was a success, but I certainly was not learning any Spanish.
13. Wallace E. Lambert, "Psychological Approaches to the Study of Language," The Modern Language Journal, 47.51-62, 114-121 (1963).
14. Rivers, The Psychologist and the Foreign-Language Teacher, 151.
15. William E. Rutherford, Modern English: A Textbook for Foreign Students (New York: Harcourt, Brace and World, 1968), p. 234.

16. Miss Patamaka Patamapongse translated this drill.
17. William E. Rutherford, Modern English: A Textbook for Foreign Students (New York: Harcourt, Brace and World, 1968), p. 175.
18. John B. Carroll, The Study of Language (Cambridge, Mass.: Harvard University Press, 1953), p. 188.