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ABSTRACT

It is necessary to classify and order structural pattern drills to assure a systematic and efficient progression in the classroom from mechanical learning to the internalizing of competence. The linguist and the language teacher must reexamine language learning theories and make changes according to the new data. Language learning is partly habit formation, but meaning and communication must also be included in the classroom activities. There are three types of drills: mechanical, meaningful, and communicative. Mechanical drills can be conducted without grammatical analysis. In meaningful drills, the student must recognize the characteristic features involved in language manipulation. Communicative drills require free transfer of learned language patterns to appropriate situations and allow the speaker to add new information about the real world. (VM)

THE SEQUENCING OF STRUCTURAL PATTERN DRILLS

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There is at present in the field of language learning and teaching a reexamination of many of its basic tenets and assumptions. This paper is an attempt to reexamine the role and function of structural pattern drills in language learning. The first part of the paper seeks to examine the relevant literature pertaining to drills in order to (1) bring together some of the major references for comparison of agreements and disagreements and (2) to consider the implications for language teaching.

The second part of the paper proposes a theoretical classification of structural pattern drills, incorporating the implications found relevant, in order to provide a systematic and more efficient working model for the classroom.

A cursory glance at the literature during the last two decades reveals a consistent concern about drills, their function, construction, and role in language teaching. This concern naturally reflects the assumptions about language learning held by the advocates of the present major approach to teaching foreign languages, the audio-lingual method. Language learning is seen as basically a mechanical system of habit formation, strengthened by reinforcement of the correct response; language is verbal, primarily oral, behavior and as such learned only by inducing the students to "behave".[1] It is not by accident that most of the proponents of this method are or are trained by descriptive structural linguists, since, as Croft points out, pattern practice and substitution drills -- the very backbone of the original Fries' oral method -- developed from techniques of linguistic field methods.[2] It is interesting to speculate that part of the theoretical foundations of the audio-lingual method was based on a fortuitous, albeit very felicitous, fit between the then major linguistic method of analysis and psychological learning theory.

Scientists tend, as Abrahms has pointed out, to research what they have the instruments to investigate and linguists are no exception. Surely there is a relationship between kinds of linguistic analyses and kinds of drills, in that drills attempt to teach what linguistic analysis reveals of language structure and typically, different linguistic analyses explore different characteristics of language structure. So Moulton as early as 1963 pointed out the relationship between tagmemics and substitution drills, between immediate constituent grammar and expansion drills and between

transformation-generative theory and transformation drills.[3] I think this is important to consider in light of the present challenge of the basic tenets of the audio-lingual method. "Linguists have had their share in perpetuating the myth that linguistic behavior is 'habitual' and that a fixed stock of 'patterns' is acquired through practice and used as the basis for analogy. These views could be maintained only as long as grammatical description was sufficiently vague and imprecise."[4]

Chomsky's admonition that "it is the language teacher himself who must validate and refute any specific proposal"[5] would lead, of course, to an empirical rather than a theoretical approach and would open a Pandora's box of problems. It is entirely true that language teaching as a field shows a dearth of controlled experimentation, and as Eugene Briere has pointed out, the primary value of Language Teaching: A Scientific Approach[6] lies in specifying all the assumptions in the field that need verification. However, the predictive power of theory would be lost if the language teacher has to validate every new proposal and the result would be an endless ad-hoc list of techniques. What the linguist and the language teacher jointly need to do is to reexamine the theory of language learning and to make changes in the theory according to new data.

There has been relatively little disagreement on the purpose of structural pattern drills when one looks at the literature of the past twenty years. Drills "are undertaken solely for the sake of practice, in order that performance may become habitual and automatic," and "make no pretense of being communication."[7] "The function of drill is to provide sufficient repetition in meaningful context to establish correct habitual responses."[8] "The fact that language operates largely on the basis of habit should be obvious to everyone...what is needed is practice that will

gradually force the students' attention away from the linguistic problem while forcing them to use language examples that contain the problem. This will engage the habit mechanism and more quickly establish the new habits."[9] Linguists from Fries[10] to Haugen[11] to Moulton[12] have echoed the belief that language learning is habit formation. Obviously we need now to look very closely at how this is reflected in structural pattern drills.

There seems to be disagreement on the degree of meaning necessary in drills and I shall return to this question. There is also disagreement as to the focus of the drill. Lado maintains the view that the student's attention should be forced away from the teaching point and defines pattern practice as "rapid oral drill on problem patterns with attention on something other than the problem itself."[13] Rivers on the basis of a good deal of psychological research[14] states, "If the drill is to be effective, the student must be aware of the crucial element in the operations he is performing."[15] This is certainly an area that needs systematic study with experimental verification of the above assumptions.

There is a great deal of varying practice, if not disagreement, in terminology. Most attempts at classification of drills are purely descriptive (Brooks,[16] Dacanay,[17] Finocchiaro,[18] Hok,[19] etc.) and are in fact taxonomies rather than conceptual frameworks. An exception is Stanislaw P. Kaczmarski's "Language Drills and Exercises: A Tentative Classification," which classifies drills according to various types of stimulus-response sequences in terms of spoken, written, and non-linguistic media.[20] Drills thus are exclusively classified according to the medium of the communicative activity with no attention to learning process or degree of information (although he says "one of the principal tasks of the methodics of language teaching is to work out the most efficient...process of habit and skill

formation in the learners."[21] V.J. Cook in an article called "Some Types of Oral Structure Drills," attempts to define structure drills in terms of the number of operations the learner has to perform in a drill.[22] "This approach treats the output as a master sentence into which successive items are inserted according to information selected from the input, rather than as a process of changing the whole input into an output."[23] She concludes that "one point which does emerge from this framework is the extremely limited number of operations that the learner has to perform in a structure drill ... It does appear that what is happening in a drill is much more limited than had been previously thought."[24] This conclusion is not really astounding because, for unstated reasons, Cook defines a structure drill as a mechanical drill only (see later discussion) and her discussion therefore only deals with mechanical drills.

There is within the last five, six years a definite increase in the demand for some form of meaning and communication in the drills. Wilga Rivers throughout her Teaching Foreign Language Skills[25] emphasises the need for meaningful learning and communicative classroom activities. Clifford Prator[26] has a very useful paper where he outlines Bowen's,[27] Stevick's[28] and his own viewpoints on this and their variances, but basically they all agree that there are two poles in language learning, i.e. from manipulation to communication and that in efficient language teaching there needs to be some form of communication built into the drills. For once, there is experimental evidence to support this assumption. Oller and Obrecht report on an experiment carried out in a Rochester, New York high school with the conclusion that "the effectiveness of a given pattern is significantly increased by relating the language of that drill to communicative activity in the teaching/learning process." They conclude

that from the very first stages of foreign language study meaningful communicative activity should be, a, if not the, central point of pattern drills.[29]

To sum up, there are fairly adequate procedural descriptions of types of drills available although we need to consider the implications of recent linguistic theory on new types of drills (not within the scope of this paper.)[31] There is growing concern with the necessity to teach not only parroting of the teacher but also some form of communication within the classroom. We do not have as yet a generally accepted theoretical framework for classifying structural pattern drills, which deals with these problems.

I have recently attempted in an article called "Structural Pattern Drills: A Classification"[32] to suggest such a conceptual framework; that is, a classification, which recognizes that language learning is partly but not only habit formation, which proposes to put meaning and communication into classroom activities, and to do so in a consistent and orderly procedure. This paper is an attempt to further expand and clarify this proposition for classifying drills. We need such a classification for grading and sequencing drills in order to obtain a systematic and more efficient progression in the classroom from mechanical learning to the internalizing of competence. I believe with John Carroll, Wilga Rivers and others in our field that "there is no reason to believe that the two positions (language teaching as formation of language habits versus the establishment of rule governed behavior) are mutually exclusive."[33] Rivers points out in a fascinating footnote that many of the language features which are most efficiently taught by drills (person and number inflections, gender agreements, formal features of tense, etc.) "are excluded by Chomsky from his system of rewrite rules and are included in the lexicon as parts of complex symbols."[34]

If, as the evidence seems to suggest, language involves more than one level and there are at least two types of learning,[35] then this should be reflected in the nature and types of drills. Both Stevick[36] and Titone[37] conceive of language learning as a three stage process, but as Prator[38] points out, there is no way of accurately assigning a drill to a specific stage. My contention is that there are three classes of drills: mechanical, meaningful, and communicative and that we may distinguish these three classes from each other if we analyze the drills in terms of (1) expected terminal behavior (2) degree of response control, (3) the type of learning process involved, and (4) of criteria for selection of utterance response.

But before I proceed to a discussion of the criteria for classifying drills, we need to consider an important aspect of drills, which cuts across this classification. Many have recognized a basic division in kinds of drills. Etmekjian[39] refers to them as teaching drills and testing drills, Rivers as the teaching phase and the testing phase, and Fries spoke of patterns produced "on the level on conscious choice."[40] What is involved is the difference between drills that serve primarily to help the student memorize a pattern with virtually no possibility for mistake and the drills which test or reinforce the learning of that pattern. (For a detailed discussion of reducing a grammatical pattern to "minimal items" see Gunter's "Proportional Drill as a Technique for Teaching Grammar.")[41] The concord of person and verb in the Romance languages serves as a good example for a teaching drill:

Model:	andar (tu)	R: andas
	cantar (tu)	cantas
Continue the drill:		
Cue:	trabajar (tu)	R:
	pasar (tu)	
	hablar (tu)	

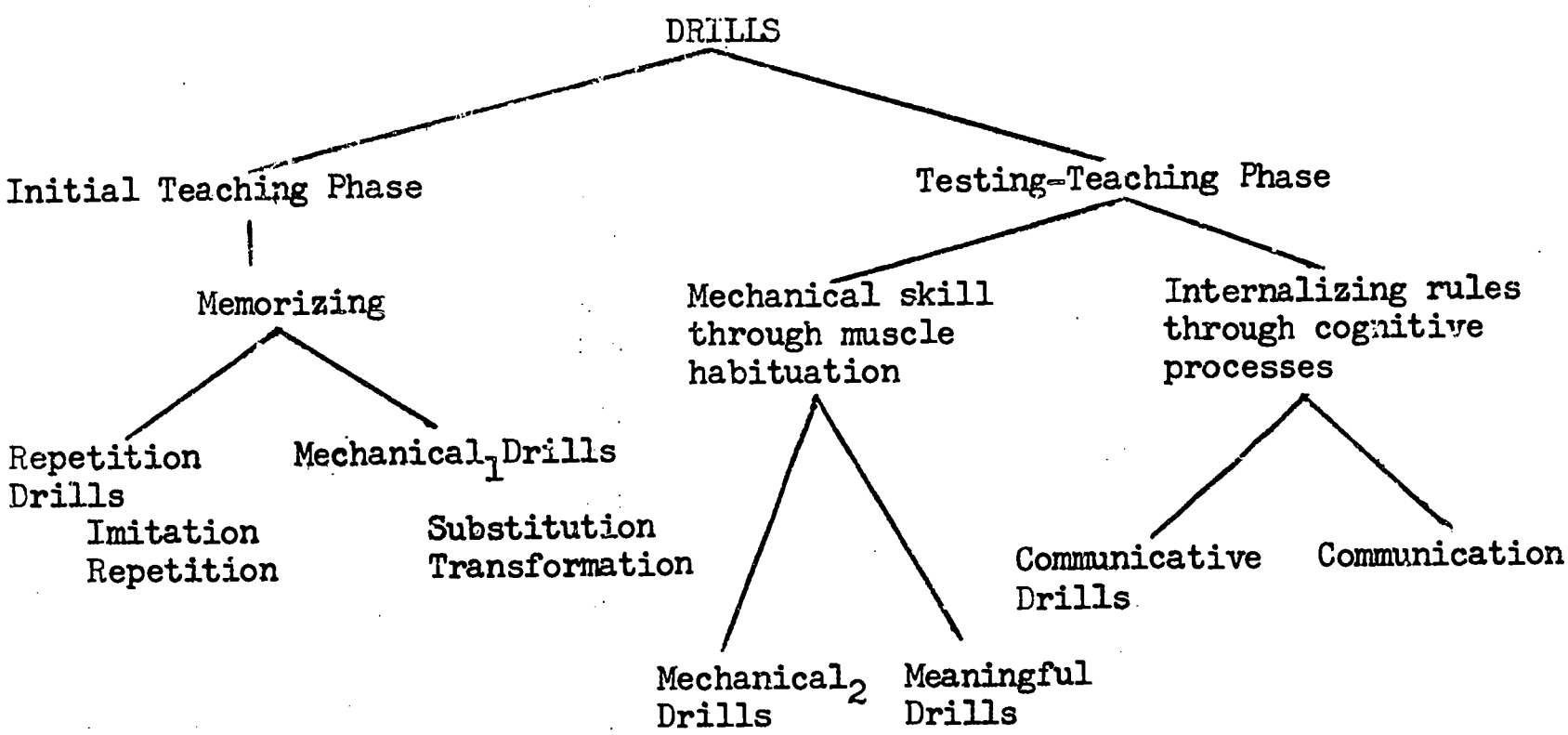
This is a memorizing drill, where even the reader who does not know (or understand) Spanish can complete the drill correctly. But as soon as we change the cues to include all persons, that is to change the cues so as to require an answer of more than minimal items, we require that the student know all the verb endings for the ar-verbs, present tense, and by his response we know whether he does or not. The response depends on the conscious choice of the student:

Model: andar (tu) R: andas
cantar (Vd.) R: canta

Continue the drill:
Cue: trabajar (el) R:

Only the student who has previously memorized these patterns can complete the drill successfully.

I have constructed a tentative design to clarify the overall division of drills.



Drills are basically divided into teaching (memorizing, habituation) drills

and testing (feed back, quizzing) d rills.[42] There are two types of drills to help the student memorize: Repet tion drills and Mechanical drills$_1$ which basically tend to be substitution dri ls but transformation drills are also possible. The testing drills in turn can be divided according to purpose: acquiring mechanical skill through mu scle habituation on the one hand and on the other internalizing of rules t rough cognitive processes. The mechanical skill drills subdivide int mechanical$_2$ and meaningful drills while the internalizing of competence drills subdivide into communicative drills and actual communication. It an thus be seen that it is possible for mechanical drills to be either te ing or teaching drills, depending on their breakdown into minimal items. mention this before discussion of the three classes - mechanical, meaningfu , and communicative - of drills because this duality of mechanical dril s troubled me for a long time and contributed to some confusion in my o her article.

This chart may make the followi discussion somewhat clearer.

	Mechanical Drills	Meaningful Drills	Communicative Drills
Expected terminal behavior	Automatic use of manipulative patterns --- formation of habits	Automatic use of manipulative patterns --- formation of habits still working on habit formation	normal speech for communication --- free transfer of patterns to appropriate situations
Degree of Control	complete	less control but there is a "right answer" expected	no control of lexical items -- some control of patterns. Answer cannot be anticipated
Learning-process involved	Learning through instrumental conditioning by immediate reinforcement of correct response ANALOGY	Learning through instrumental conditioning by immediate reinforcement of correct response ANALOGY trial-and-error ANALYSIS	problem solving ANALYSIS
Criteria for selecting response	teacher	teacher, situation, readings (knowledge common to the class)	student himself (new information about real world)

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 although he responds correctly, as in the first Spanish drill. One might possibly consider repetition drills as the most extreme example of this class of drill. Substitution drills lend themselves particularly well to this. Here is another mechanical drill that all readers can complete be-

cause it has been broken down to minimal items. It is a memorizing drill on the subject-adjective word order in Thai:

Example: +Poom: 3nakrian +Poom
+suun: 3nakrian +suun
2?uan: 3nakrian 2?uan

Continue the drill:

1. +naaw
2. 3roon
3. dii
4. 2suay43

The following drill is also a mechanical drill but unless you have studied (and memorized) the various classifiers you will not be able to complete it. It is a mechanical testing drill and (apart from the choice of numeral) there is only one correct answer:

6: V 22 Complete the sentence with a numeral and a classifier.

Example: +Kaw 3suu roon 3Taaw
+Kaw 3suu roon 3Taaw +soon 2Kuu

Continue the drill:

1. +Kaw 3suu 2Paanun
2. 2Poo 'Puuk 3nekTay
3. 2maeae 'say 2soyKoo
4. 3noon 3sak 2sua
8. 3nakrian 'say 2+suanaaw
9. Kruu 3suu roon3Taaw
10. 2Pii 3sak kaankeen
11. 'dek 2Puuyin +say +waeaen44

The difference between a mechanical memorizing drill and a mechanical testing drill lies in the ability of the student to respond which again depends on

how well he has memorized certain patterns, but understanding what he is saying is not a necessary requisite. It is perfectly possible to supply a verb with a correct ending in, e.g. Spanish, without necessarily knowing what the verb means: given Cue: *gratar (nosotros) any docile student will respond with *gratamos and he no more than I will know the meaning of that nonsense word. I remember perfectly well drilling classifiers in Thai without knowing the lexical meaning of the words; I just divided the world in terms of fruits, containers and people, but what kind of people or fruits I did not need to know. The ability to drill mechanical drills without necessarily understanding them is an important criterion in distinguishing them from meaningful drills.

Transformation drills may be mechanical:

John kicked the door.
The door was kicked by John.

All the student need memorize is the structural change and he can complete such a drill without understanding exactly what he is saying. Response drills, which so frequently are being masqueraded forth as communication, can be some of the easiest mechanical drills for the student:

Which would you prefer, tea or coffee?
wine or beer?
nectar or ambrosia?

I know very well that the student is going to answer ambrosia without the foggiest notion of what it is.

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 associaticns 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.

The student knows how to select his utterance response on the basis of the teacher's cue, be it oral or pictorial, but the teacher is the sole criterion for supplying the correct response. This becomes an important distinction between meaningful and communicative drills.

Much of the criticism of the audio-lingual method is based on the mechanical drill or rather the over-use to which it has been put. There are a number of psychological studies which demonstrate that there is a limit to the efficiency of mechanical drills in the language learning. 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 next needs to work through a set of meaningful drills:

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 less suitable for choral drilling. There is a right answer and the student is supplied with the information necessary for responding, either by the teacher, the class-

room situation or the assigned reading, but in all cases the teacher always knows what the student ought to answer. Everyone is always aware that these drills are only language exercises and that any answer will do as well as another as long as it is grammatically correct and conforms to the information supplied. The student cannot complete these drills without fully understanding structurally and semantically what he is saying. I have attempted very hard to exclude lexical meaning from structural in the definition of meaningful drills, but I doubt that it is either possible or desirable. With the new license for mentalism I shall include both. The result is that some pattern drills come very close to being vocabulary drills. Compare the above "Which would you rather have, tea or coffee?" with "Which would you rather be, rich and healthy or sick and poor?" In other words, some meaningful drills may have the check for feedback that the student really understands the pattern built into the lexical components.

Comprehension type question and answers based on assigned readings fall in this class of drills:

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

as well as much "situational" teaching as in this drill on post-nominal modification using prepositional phrases, where the students were instructed to describe each other:

Teacher: Which boy is in your class?
Student: The thin boy with long sideburns.
The handsome boy with black hair.
Etc.

It will be noticed that in the question-answer drill above, the long answers were given. The expected terminal behavior is the same as for mechanical drills. We still want an automatic use of language manipulation; we are still working on habit formation. Although for the language teacher,

who is fluent in the target language, it may be difficult to appreciate the enormous difference in difficulty in these two classes of drills.

This is not to deny that a response like "The man was bitten by the dog," albeit in a mechanical drill, is much more difficult for the learner than a single lexeme substitution drill. Language learning is also the ability to control increasing amount of language in mechanical manipulation, and we need to consider the difficulty level within the "amount range" as well.

But the method is different. Mechanical drills by their nature can be drilled without grammatical analysis with the students left to "analogize" the pattern on their own. This is not possible with meaningful drills. Unless the student understands what he is doing, i.e. recognizes the characteristic features involved in the language manipulation, he cannot complete the drill. Politzer reports on an interesting experiment in "The Role and Place of the Explanation in the Pattern Drill" and points out that an early introduction of the explanation seems to be a more effective treatment than its postponement or omission and that it is preferable to show the application and relevance of the new material in some sort of context before explaining it.[46] The place for the explanation then is following the mechanical drills; those students who grasped the analogy will be rewarded with positive reinforcement and those who did not will be helped to understand the specific characteristics of that language structure.[47] The learning process varies depending on the structural pattern drilled, and while there may still be instrumental conditioning involved, there is very often a trial-and-error process involved in finding the correct response.

At this point, however, 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.

The degree of control in a communicative drill is a moot point. I originally stated that there is no control of the response, that the student has free choice to say whatever he wants. However, this turns out not to be true. All classroom teachers, using this system of sequencing drills, have reported back saying that there is indeed control, not of lexical items as we had at first thought but of structural patterns. The difficulty lies just in retaining this control so that the students indeed practice what they have learned; they themselves lose track of the fact that they are drilling and become engrossed in exchanging information. But it is a drill rather than free communication because we are still within the realm of the cue-response pattern. Communication "requires interpersonal responsiveness, rather than the mere production of language which is truthful, honest, accurate, stylistically pleasing, etc. -- those characteristics which look at language as language rather than as behavior, which is the social purpose of language. Our end product is surely getting things done, easing social tensions, goading ourselves into doing this or that, and persuading others to do things. Communication arises when language is used as such inter-personal behaviour, which goes beyond meaningful and truthful manipulation of language symbols."[48] To recapitulate, the differences between a meaningful drill and a communicative drill lie in the expected terminal behavior (automatic use of language manipulation versus free transfer of learned language patterns to appropriate situations) and in response control. But the main difference between a meaningful drill and a communicative drill is that in the latter the speaker

adds <u>new</u> 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 progression 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 communicative activity.

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 situation. Need I point out that running through a memorized dialogue with accompanying gestures and action is not communicative drill nor necessarily language learning; non-language teachers refer to such activity as acting. Another, simpler way of working with communicative drills is simply to instruct students to answer truthfully.

Example:

1. What is your responsibility?
   My responsibility is to (learn English).
   (learning English).

2. What's your hobby?
   My hobby is to (make models).
   (making models).

3. What's your favorite pastime?
4. What are your lab instructions?
5. What will your occupation be?
6. What are your interests?
7. What is your advice to (Ahmed)?[49]

Gone is the instrumental conditioning; there is no facilitating of the correct response. What we have is John Carroll's "'problem-solving' situation in which the student must find ... appropriate verbal responses for solving the problem, 'learning' by a trial-and-error process, to communicate rather than merely to utter the speech patterns in the lesson plan."[50] We are clearly working within a level of language that involves thought and opinion and teaching it in a way that necessitates an understanding of the essential elements of what is being learned. It is a very different experience from mechanical drilling. It is indeed practice in performance by practice in generating new utterances in order to internalize the rules of grammar so that competence will not be defective. I am not saying that language teaching should be concerned solely with communicative type drills, but 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.

FOOTNOTES

1. A summary of Wilga River's "Table of Content" in The Psychologist and the Language Teacher (Chicago: University of Chicago Press, 1964), pp. vii-viii, which examines the major assumptions of the audio-lingual method.

2. Kenneth Croft, "TESL Materials Development," NAFSA Studies and Papers, English Language Series, No. 11, ed. K. Croft, p. 45.

3. William Moulton, "What is Structural Drill?" Structural Drill and the Language Laboratory, ed. F.W. Gravit and A. Valdman (The Hague: Mouton, 1963), pp. 11-15.

4. Noam Chomsky, "Linguistic Theory," North East Conference on the Teaching of Foreign Languages, ed. Robert G. Mead. Reports of the Working Committees, 1966, p. 44. See also Chomsky's review of Skinner's Verbal Behavior in Language, 35: (1959), 26-58; Eric Lenneberg, "The Capacity for Language Acquisition" The Structure of Language, ed. J. Fodor and J. Katz (Englewood Cliffs, N.J.: Prentice-Hall, 1964); and Leon A. Jacobovits, "Implications of Recent Psycholinguistic Developments for the Teaching of a Second Language," Language Learning, XVIII: 1 and 2 (June, 1968) 89-109.

5. Chomsky, 45.

6. Eugene Briere, Review of Language Teaching: A Scientific Approach, by Robert Lado, IJAL, 31 (1965), 170-178.

7. Nelson Brooks, Language and Language Learning (New York: Harcourt, Brace and World, 1964), p. 146.

8. J. Donald Bowen, "Appendix: Pedagogy," in R.P. Stockwell, J.D. Bowen, and J.W. Martin, The Grammatical Structures of English and Spanish (Chicago: University of Chicago Press, 1965), p. 295.

9. Robert Lado, Language Teaching: A Scientific Approach (New York: McGraw-Hill, 1964), p. 105.

10. Charles C. Fries, Teaching and Learning English as a Foreign Language (Ann Arbor: University of Michigan Press, 1945), pp. 8-9.

11. Einar Haugen, "New Paths in American Language Teaching," ELEC Publications, III (March, 1959), 23.

12. Moulton, 5.

13. Lado, 105. See also, Jeris E. Strain, "Drilling and Methodology," Language Learning, XVIII:3 and 4 (December, 1968) 177-182.

14. Rivers, Chapter XI.

15. Wilga M. Rivers, Teaching Foreign Language Skills (Chicago: University of Chicago Press, 1968), p.82.

16. Brooks, 156.

17. Fe R. Dacanay, Techniques and Pro[illegible]edures in Second Language Teaching (Dobbs Ferry, New York: Oceana Pu[illegible]lications, 1963), pp. 107-151.

18. Mary Finocchiaro, English as a Se[illegible]cond Language: From Theory to Practice (New York: Regents, 1964), pp. 50-[illegible]55.

19. Ruth Hok, "Oral Exercises: Their [illegible]ype and Form," Modern Language Journal, 48:4 (1964), 222-224. See also, T[illegible] Grant Brown, "In Defense of Pattern Practice," Language Learning, XI[illegible]:3 and 4 (December, 1969) 191-203; and James W. Ney, "Oral Drills - Meth[illegible]dology," NAFSA Studies and Papers, English Language Series, ed. Davi[illegible] Wiggiesworth, 1967, pp. 57-63.

20. Stanislaw P. Kaczmarski, "Language [illegible] Drills and Exercises: A Tentative Classification," IRAL, III:3 (Aug[illegible]st, 1965), 195-204.

21. Kaczmarski, 195.

22. W.J. Cook, "Some Types of Oral Str[illegible]cture Drills," Language Learning, XVIII:3 and 4 (December, 1968), 1[illegible]5-164.

23. Cook, 157.

24. Cook, 164.

25. Rivers, Teaching Foreign Lan[illegible]guage Skills.

26. Clifford Prator, "Outline[illegible]s for Planning Classes and Teaching Materials," Workpapers in English as a Second Language: Matter, Methods, Materials, Department of En[illegible]glish, University of California, Los Angeles, April, 1967.

27. Bowen, 292-309.

28. Earl W. Stevick, "UHF and Microwaves in Transmitting Language Skills," Language Learning: The Individual and the Process, ed. E.W. Najam, IJAL, 32:1 (January, 1966), 84-94.

29. John W. Oller and Dean H. Obrecht, "Pattern Drill and Communicative Activity: A Psycholinguistic Experiment," IRAL, VI:2 (may, 1968) 165-174.

30. Rivers in The Psychologist and the Foreign Language Teacher, Chapter V, pp. 31-42, was one of the first FL teaching specialist in a major work to question the Skinnerian concept of conditioning. See also Leon J. Jacobovits, Foreign Language Learning: A Psycholinguistic Analysis of the Issues (Rowley, Mass.: Newbury House Publishers, 1970).

31. See e.g. Mark Lester, ed. Readings in Applied Transformational Grammar (New York: Holt, Rinehart and Winston, 1970); Robin Lakoff, "Transformational Grammar and Language Teaching,: Language Learning, XIX:1 and 2 (June, 1969) 117-140. William E. Rutherford, "From Linguistics to Pedagogy: Some Tentative Applications," Preparing the EFL Teacher: A Projection for the '70's, ed. R.C. Lugton (Philadelphia: Center for Curriculum Development, Inc., 1970), 29-44; Sol Saporta, "Applied Linguistics and Generative Grammar," Trends in Language Teaching, ed. Albert Valdman (New York: McGraw-Hill, 1966).

31. (con't) This language teacher would like to express her validation of most TG proposals for classroom teaching as quite impractical. Hauptman is quite right when he says, "We must be aware of the fact that in many areas, transformational grammar is not ready to be applied except in the most cursory way. We can look to it for insights, but it is a mistake to expect firm answers." (289) Philip C. Hauptman, Review of Readings in Applied Transformational Grammar, ed. Mark Lester, Language Learning, XX:2 (December, 1970), 284-289.

32. Christina Bratt Paulston, "Structural Pattern Drills: A Classification," Foreign Language Annals, IV:2 (December, 1970), 187-193.

33. Rivers, Teaching Foreign-Language Skills, 78. See also John B. Carroll "Current Issues in Psycholinguistics and Second Language Teaching," paper read at the TESOL convention, New Orleans, March 3-7, 1971.

34. Rivers, Teaching Foreign-Language Skills, 79.

35. Rivers, The Psychologist and the Language Teacher, 47, 50.

36. Stevick, 85. Stevick actually talks of a two-phase cycle from the M-phase of mimicry, manipulation and meaning to the C-phase of communication. This process is analyzable along the three dimensions of "habituation," "vividness," and "responsibility."

37. Renzo Titone,"A Psycholinguistic Model of Grammar Learning and Foreign Language Teaching, "English as a Second Language: Current Issues, ed. R. Lugton (Philadelphia: Center for Curriculum Development, 1970), pp. 41-62, and especially 58-59. He refers to grammar learning as a three stage process: (1) Association of elementary linguistic units, (2) Induction and integration, and (3) Deduction.

38. Prator, 31.

39. James Etmekjian, Pattern Drills in Language Teaching (New York: New York University Press, 1966), pp. 33-36.

40. Fries, 9.

41. Richard Gunter, "Proportional Drill as a Technique for Teaching Grammar," Language Learning, X;3 and 4 (1960), 123-134. See also Andrew Macleish, "Composing Pattern Practice Drills," On Teaching English to Speakers of Other Languages, ed. B.W. Robinett, Series III, 1966, 141-148. and "Questions and Directed Discourse," TESOL Quarterly, 2:4 (December, 1968) 262-267.

42. I find the terminology of teaching and testing drills infelicitous, in that the testing drills are also designed to teach language and "testing" easily becomes confused with the technical sense of that word. I am at a loss though to find a more apt terminology.

43. Edward M. Anthony, et al., Foundations of Thai-Book 1, Part 1 (University of Pittsburgh, 1967), p. 31.

44. Anthony, 115.

45. William E. Rutherford, Modern English: A Textbook for Foreign Students (New York: Harcourt, Brace and World, 1968), p. 234.

46. Robert L. Politzer, "The Role and Place of the Explanation in the Pattern Drill," IRAL, VI:4 (November, 1968): 315-331.

47. Richard Barrutia, "Some Pedagogical Dangers in Recent Linguistic Trends," IRAL, IV:3 (1966), 157-164.

48. Dr. Francis C. Johnson, Professor of English, University of Papua and New Guinea. In personal communication, 31 July, 1970. He states his objection better than I could paraphrase it; as always I am grateful for his comments.

49. Rutherford. 175. The teaching point here is using the compliment to V_t + O (as in to learn English) in free variation with V+ing+O (as in learning English). The teacher asks the questions and the students answer.

50. John B. Carroll, The Study of Language (Cambridge, Mass.: Harvard University Press, 1953), p. 188.