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TECHNICAL NOTE NO.

9

LETTER FLUENCY GAMES

NOTE WRITTEN BY:

JOCK GUNTER

SUMMARY:

Letter Fluency games are simple inexpensive devices designed to offer practice in the component skills necessary for literacy. In this note a variety of fluency techniques are discussed.

TECHNICAL NOTES

This series of Technical Notes has been produced by staff members of the Ecuador Nonformal Education Project. Each note focuses on a particular issue or technique which has been developed and tested in Ecuador. The notes contain the information available at the time of writing and analytic comments based upon available evaluation data. However, the notes are in no way an evaluation of the project. Their purpose is to share ideas and information about new techniques as they are developed. Project staff want to encourage comments and suggestions from readers who may have had experience with similar techniques in other settings.

The project is financed by USAID and is a joint undertaking of the Ministry of Education in Ecuador and the Center for International Education at the University of Massachusetts. Ideas and materials derived from the ideas were created jointly by staff in Massachusetts and staff in Ecuador. All materials have undergone considerable change in the field as usage in various situations indicated needed modifications. The notes attempt to accurately credit the creators of each technique. In some cases, though, ideas have been modified by a variety of people and precise assignment of credit is difficult. In all cases, various members of the staff have made substantial inputs into the final version of the materials.

After three years of effort the number of people in Ecuador and in the United States who have made substantial contributions to this project is considerable. Rather than trying to enumerate the particular contributions of each, we will only note that this has been a genuine bi-national effort.

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David R. Evans
Series Editor & Principal Investigator

LETTER FLUENCY GAMES

INTRODUCTION

Some of the technical notes in this series have dealt with specific materials and methods, others with broad issues or more general types of educational activity. Note Number 6 was devoted to the letter dice game, the literacy fluency material which has received most utilization and acceptance in Ecuador. This note will review all fourteen literacy fluency games and exercises which the project has developed.

Several general issues will be raised. For instance, what range of skills can be developed with fluency materials? What are the internal dynamics of successful fluency materials? What is the proper role of fluency materials in a non-formal literacy program? What degree of professionalism should a non-formal education program employ in research and development of fluency materials? And, how do materials development decisions influence the direction and control of a project?

Before these questions can be approached, we must first define what are meant by literacy fluency materials. What are their common characteristics? How were they developed and implemented within the context of the University of Massachusetts Non-Formal Education Project in Ecuador?

Literacy fluency materials are structured activities through which written language is broken down into manageable problems and presented to the learner for practice. Rather than cope with written language as

a whole, learners can concentrate upon learning and becoming fluent in one component skill at a time. Ranging from letter rummy to word bingo and to the sentence game, the project staff has developed materials for most levels of organization of written language:

<u>Skills</u>	<u>Materials</u>
-to encode a picture or spoken word into its equivalent in written language.	-chulo -concentration -lottery -labelling game -word bingo
-to combine letters into written words.	-letter dice
-to decode written words into spoken words.	-letter rummy -word trip -letter chips
-to build syllables into written words.	-syllable dice
-to decode syllables into sounds.	-the Freire game
-to decode written words into spoken words.	
-to assemble syllables into sentences.	-jigsaw
-to build phrases into sentences.	-the sentence game
-to decode written sentences into spoken sentences.	
-to encode a string of picture stamps into written stories.	-rubber stamp literacy method
-to decode stamped written stories into spoken stories and picture stamps.	

The above materials have been designed to be learner-oriented, participatory and self-motivating. Rather than focus upon the actions of a teacher, the literacy materials focus upon the problems encountered by the student. Furthermore, the materials depend upon participation by groups of learners in order to take effect. With learning a reward for

learner initiative and interaction, materials are intended to be self-motivating.¹

The motivation generated for continued skill practice should not be confused, however, with the broader, more sustained motivation to become fully literate. A learner could conceivably adore manipulating letter dice to discover new words, while having no desire to read books or write letters. Becoming fully literate is a long and tedious process requiring strong and sustained motivation. The development of such motivation depends upon a host of variables beyond the control of the materials developer. The availability of relevant and attractive reading materials, the occupational and status rewards of becoming literate, the dedication and efficiency of the literacy trainers, the design of the literacy program, the belief of the learner and of his peers in their ability to become literate--all these influence the eventual outcome. The literacy fluency materials must be seen in this broad perspective.

FLUENCY MATERIALS WITHIN THE CONTEXT OF THE NON-FORMAL EDUCATION PROJECT

Initially, the project was given a very broad mandate: to foster the development and delivery of meaningful education to rural non-school populations in Ecuador. In this context, a number of constraints were operating to pull the project away from orthodox "expert" approaches to materials development.

¹These characteristics derive directly from the project's educational philosophy, which has been detailed in previous notes in this series.

Operating without the captive audience of school populations, our project would have to rely upon voluntary participation by learners after a hard day's work. A prime criterion for suitable games and exercises would be the ability to attract and maintain the interest and motivation of rural learners. Furthermore, the small size of our staff meant we could only reach significant numbers of rural learners by creating methods and materials which would be adopted by the existing non-school networks delivering education to rural populations. Literacy training became a project concern because of value placed on literacy by non-school rural learners themselves, and by the institutions created to serve them.

The project's approach to materials development for literacy was the opposite of that of the literacy expert. The central question was what kind of materials will the learners enjoy using? What kinds of materials really stood a chance of being adopted and implemented by rural non-school institutions? Until materials could be developed which would succeed in these objectives, questions of this nature would remain unanswered.

On the other hand, the literacy expert would have evaluated learner behavior to ascertain the most efficient techniques for producing literates. He then would have been confronted with the problem of selling the learners the technique which he knew to be "best for them." Our project has felt that we could never know what was best for the learners. We questioned the value of teaching literacy for literacy's sake, and focused upon broader educational aims which literacy might serve.

Simultaneous development of materials for various content areas maintained this broad focus. Fluency games teaching market mathematics, simulation games for insight into social and economic processes, and materials encouraging self-expression were important parts of the materials development effort. The main philosophical thrust of the project's approach to literacy was derived from the self-expressive methods of Sylvia Ashton-Warner and Paulo Freire. The overall aim of literacy training would be self-expression, self-esteem, and conscientization. These goals seemed far more sound and realistic than raising expectations about occupational advancement or increased availability of information or entertainment. In Ecuador, job opportunities for peasants do not increase with literacy. Reading cannot be considered useful for information or entertainment, since there are virtually no reading materials in Ecuador which are produced for peasant audiences or with peasant circumstances in mind.

Both Freire's and Ashton-Warner's approaches to literacy, however, were soon seen to be lacking comprehensiveness in guiding the illiterate's efforts. Freire concerns himself with the importance of learning and discussing "generative words," words from which can be drawn insights into social, economic and political realities, and strategies for dealing with them. Freire is concerned with the importance of the world of written symbols to the process of conscientization and cultural action for liberation. He does not dwell upon teaching the specific skills under which lie competence in dealing with written symbols.

Nor does Sylvia Ashton-Warner's method deal adequately with the structure of written language. Initially, learners are asked individually what words are most important and powerful for them. These "key words" are written upon cards and delivered to their "owners" for study. Learners practice writing their key words, teach their words to other interested learners, and gradually develop their own "key vocabulary." These vocabularies are used to write sentences and stories, which are shared with the other learners.¹

Both these approaches focus upon the word. One deals also with the sentence and the story. Neither one, however, addresses the other levels of organization of written language - letters, syllables and phrases - which the learner must master in order to use it as a means of expression or liberation.

Can a learner either read or write a "key word" without first knowing which letters represent which sounds? There is nothing about the shape of the letter "a" that tells you what sound it represents. This must be learned and practiced. One may require extensive practice in discriminating between letters in order to tell a "b" from a "d". It may be equally necessary to practice the building of words from letters or syllables before a learner can read "generative words" at all, much less build one's own "key words" into expressive statements.

¹The major difference between Freire's and Ashton-Warner's approach is that the latter values self-expression on the individual level in written form. Freire's prime educational outcome is heightened political conscientiousness and cultural action on the class level.

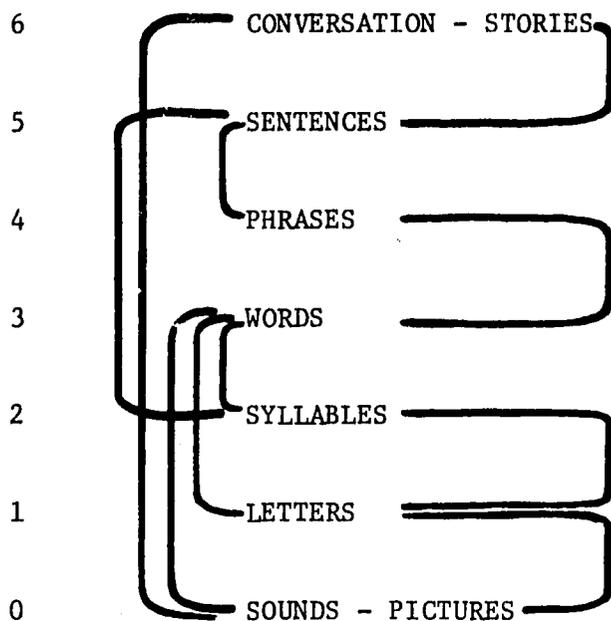
Freire does not concern himself with the higher levels of organization of written language. Ashton-Warner assumes that once a key vocabulary has accumulated, learners will begin to express themselves by writing sentences and stories. Our project has wondered whether undirected composition may not depend upon fluency in combining letters into syllables, syllables into words, words into phrases, phrases into sentences, and sentences into paragraphs.

Thus, while Freire and Ashton-Warner limit themselves to the holistic view of literacy as a tool for self-expression or cultural action, the non-formal education project sought to undergird these approaches with nuts-and-bolts games and materials to teach and reinforce concrete, component skills required for literacy. The fluency materials developed as a result of the project's belief that competence and familiarity with the mechanics of written language are a necessary prerequisite for its expressive uses.

FLUENCY MATERIALS AND THE LEVELS OF ORGANIZATION OF WRITTEN LANGUAGE

Below are detailed the levels of written language. On the left are lines representing bridges in skill level taught and reinforced by the various fluency materials. Letter dice, for example, are represented in the line which links level one (letters) to level three (words). To the right of the column are links not established by the project materials:

LEVEL OF ORGANIZATION OF WRITTEN LANGUAGE



Lines to the left of the column show that project materials have tended to focus most on words. They tend to bridge more than one level of written language. The lines to the right of the column tell us that skills on the lowest and highest level have not been covered by fluency materials. Neither the expressive methods (Freire, Ashton-Warner) nor the fluency materials provide for learning and practicing the association between a given sound and its corresponding letter. The differences between consonants and vowels, the ways in which the two types of letters combine to form syllables, are also left uncovered by fluency materials. Failure to master these basic skills could assure a learner of failure in attempts at more difficult tasks like deciphering written words. The

project's store of fluency materials should certainly contain exercises which deal explicitly with these skills.

Within the range of skills which are covered by the fluency materials, there has been a concentration of effort on certain levels of written language. The various methods, grouped according to which levels they deal with, are listed below:

PICTURES INTO STORIES (level 0 to level 6)

rubber stamp literacy method

SOUNDS OR PICTURES TO WORDS (level 0 to level 3)

lottery

labelling game

word bingo

chulo

concentration

LETTERS INTO WORDS (level one to level 3)

letter dice

letter rummy

word trip

letter chips

SYLLABLES INTO WORDS (level 2 to level 3)

syllable dice

the Freire game

SYLLABLES INTO SENTENCES (level 2 to level 5)

jigsaw

PHRASES INTO SENTENCES (level 4 to level 5)

the sentence game

From the above, we can conclude that there are striking similarities among most of the materials. For example, 12 of the 15 literacy fluency

materials deal with the encoding and decoding of words. Eleven of the fifteen bridge more than one rung on the ladder of organization of written language.

The materials were not designed to embody hidden assumptions about how literacy training should be conducted. Rather, materials were designed intuitively, with more emphasis upon what types of exercises and games would appeal. If materials could be produced which could physically reach and emotionally involve learners in non-formal education settings, their efficiency in producing cognitive gains could be evaluated and improved at a later date.

We may now have reached the point where it is time to recognize and examine the assumptions hidden in existing fluency materials. Is the word the best unit of written language for materials to focus upon? Would some learners progress more rapidly with a range of materials which built from one level to the next higher level of organization only (syllable dice vs. letter dice)? There has been some call for the project to answer these and other questions through research, to then assemble a proven sequence of fluency materials to guide the learner from illiteracy to complete literacy. The project's reactions to these ideas will be taken up later in this paper.

FLUENCY MATERIALS AND LEARNER INITIATIVE

Another way in which the fluency materials vary is the degree to which the learner must make decisions and act in order to succeed. In some

cases, players respond to one stimulus with a series of decisions and actions. In other games and exercises, there is only one correct learner response demanded for each stimulus from the game.

In some extreme cases, the nature of the response is largely determined by luck rather than by conscious action on the part of the learner. In the gambling game el chulo, for example, the player's only conscious decision regards which of his cards containing animal names he will place on the game board. The game leader then throws three dice whose faces contain pictures of animals. The player's only other action is to decode the name of the animal he has bet upon, and to compare it with the animal pictures which emerge, in order to see whether he has won. The player's role is passive, simple, and non-threatening.

Another game which demands little active participation of the learner is lottery. In this game, up to six players receive game boards each containing 12 pictures representing common words. The game leader shuffles a deck of cards containing the written equivalents of the 72 pictures on the players' boards. The leader holds up cards. Players respond by pronouncing the word, and claiming those words identifying pictures they have on their boards. The claimant receives the card and places it on the appropriate square of his game board. The first person to fill his board wins the game.

This game places the learner in an even less threatening role than el chulo. The learner who does not know how to read a card that the group leader holds up will be able to hear members of the group shout it aloud.

He then has only to compare a known oral word with recognizable pictorial representations of common words on his game board. When he does receive a word card, he will have the opportunity and the motivation to study it, and learn it. The more advanced learner, on the other hand, can try to decode each card for himself, as it is held up by the facilitator.

The concentration, although quite similar to lottery, gives control of stimuli to the learner. The common game of concentration has been altered only by changing the nature of the pairs. A pair consists of one card with a picture of a common word, and one card with the written word itself. The cards are shuffled and laid out face down in rows and columns. The first player first turns over one card and then turns over another, hoping for a pair. If he gets a pair, he takes the two cards. If he does not get a pair, the two cards are placed face down again. All contestants try to remember the location of the cards they have seen as the next player takes his turn. Players' ability to find pairs derives from knowledge of written words, from memory and from luck. In this case (unlike lottery) one's luck depends upon one's own action (which cards one happens to turn up) and not from the actions of a group leader.

An extreme in non-involving and non-threatening fluency exercises is the labelling game. Learners simply label objects in their village environment with their written names. One might hang a sign reading "store" on the village store, a sign reading "tree" on a large tree, and so forth. People who pass by the labelled tree or store may or may

not choose to look at and decode the written word. The answer to the problem represented by the written word is obvious, since the learner knows that objects in the community are being labelled, recognizes the object in question, and knows (orally) its name. This represents the extreme in effortless, incidental learning.

On the other end of the spectrum are materials which demand a chain of responses from the learner. The best known of these is the letter dice. The learner controls the game's stimulus, in the sense that he is the one who throws the dice. Then he is called on to assess the letters that turn up, to decode them into sounds, and to attempt to assemble as many words as possible, drawing upon his passive memory of spoken and written words. One would have to venture far above the level of sophistication of both this paper and of the project literacy approach to analyze the chain of mental operations necessary to assemble an inventory of letters into various words. For each word the learner attempts to form, he must engage in a search strategy. Exploratory rearranging and decoding of a few letters might suggest sounds reminiscent of a word the learner knows. Repeating that word, the learner may get a sense of what sounds are missing from his creation, and then search for the letters which represent those missing sounds. As he tries (successfully and unsuccessfully) to form words, he will gain a mental "feel" for what sounds are present in his inventory of letters. To a single stimulus, the learner responds by initiating a complex chain of mental operations.

The letter rummy game is simply the 66 faces of the 11 letter dice

transferred to 66 cards. Nonetheless, the activities of the players are quite different from those in the letter dice. Players are dealt five cards, which they hold hidden in their hands. The first player draws a card from the deck. If he is able to form a word, he places the appropriate cards face down in front of him, and discards a card. If he has not been able to form a word, he simply discards. The next player then draws, and tries to form a word and discards. The first player to get rid of all the cards in his hand is the winner---providing that the words he has spelled prove to be correct.

The dynamics of this game are quite different from those of the letter dice. Instead of one player playing while the others spectate, the letter rummy game provides that all participate equally as players. Instead of confronting a player with 11 letters from which he must form as many words as possible, the letter rummy game never asks players to deal with more than six letters at a time. The goal is less ambitious as well, to form words once from a changing store of letters. The pace is slower, too. Each player has time to think, to decide which letters should be kept and which letters discarded, while his companions take their turns. As a result, the letter rummy game may be less threatening than dice, more suitable for learners without much self-confidence. On the other hand, the letter dice game always involves a group activity within which help is at hand for the player who is not completely sure of what he is doing. In the letter rummy game, in contrast, each player is on his own. At the end of the game, the words he has placed in front

of him will be opened to the other players' scrutiny.

A middle ground between the stimulus-response mode and the open-endedness of the letter dice and cards is offered by the syllable materials; the Freire game, a card game analogous to letter rummy, and syllable dice. Carlos Poveda, Head of the Adult Education Division of Ecuador's Ministry of Education, has held that the syllable is more appropriate as a basic unit than the letter. The dice with which he has experimented include only syllables and lone vowels.

Sr. Poveda has excluded lone consonants from his game. His reasoning is that, since consonants can only be pronounced when preceded by or followed by a vowel, they remain meaningless abstractions in isolation. Furthermore, sequences of consonant letter dice are unpronounceable. All sequences of syllable dice, however, can be pronounced. For these reasons, Sr. Poveda believes that syllable dice lead to less confusion and failure, more success and positive reinforcement than letter dice.

It is certain that with syllable materials the chances are greater that a student's efforts will lead to the formation of a word. While a learner has to gather together four letter dice to form the word "casa", only two syllable dice are required. In order to provide even higher probabilities of success, syllable dice have been color-coded according to difficulty. Syllables are distributed on the faces of the initial two red dice in such a way that any throw of the dice yields two syllables that can be formed into a common word. The next four dice are of a different color, and contain syllables which offer good chances of

forming additional numbers of common words. The rest of the dice are in yet another color. Adding these to the game permits the formation of most words in the Spanish language, but this at the cost of introducing many combinations of rare syllables that do not form words. In this way, a learner can control the difficulty of the task he undertakes, graduating to more complicated games by adding dice.

As stated initially, the concept behind a fluency game is that of isolating certain component skills of literacy for practice, while temporarily leaving aside other skills. The aim, in even the most demanding of fluency materials, is to help the learner avoid the often overwhelming confrontation with the entirety of written language at once. Problems are broken up into bite-sized portions.

One problem which is avoided by almost all of the fluency materials is that of writing, of manipulating a pencil in order to encode oral language into written language. With the exception of word bingo, all fluency exercises and games allow the learners to form words by rearranging printed symbols.

There is a very practical reason why the skill of writing is left out of most fluency materials. Many of the learners working with the non-formal education project either never learned to write correctly, or have long since lost their abilities with a pencil. Learning to use a pencil proves to be a very difficult psychomotor task, a task which is best taken on in isolation from other tasks, and after one has accumu-

lated a powerful motivation to express a number of words which one has already learned to assemble with the use of fluency materials. Since writing is not integral to the skills of encoding and decoding written language, the project has decided to let learners tackle the problem of writing largely at their own pace.

The word bingo game, the one fluency game which does not involve writing, asks the student only to copy a word which is directly before him. Each player has a bingo board, containing a configuration of written words, and a blank space next to each word. The facilitator holds up a card with a written word on it. The players scan their boards to see whether that word is present. Those players who have that word must copy it in the blank space next to the word on their boards. The first player to fill a straight line with written words wins. This game requires the most learner participation in the sense of requiring production of written words on paper. Nonetheless, it does not escape from the one stimulus-one correct response format.

THE RUBBER STAMP LITERACY METHOD

We have seen that fluency materials have certain basic characteristics: They allow learners to manipulate an existing store of visual and written symbols, instead of demanding that he write. They operate at certain levels of organization of written language and exclude others. They determine a role for the learner along a continuum whose extremes range from trying to produce a correct response per stimulus on the one hand, to undertaking a series of decisions and actions in response

to one stimulus on the other. There is one fluency method which encompasses all of these characteristics.

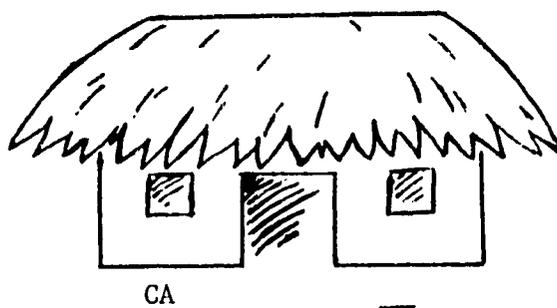
The rubber stamp literacy method derived from pictorial rubber stamps, which were first introduced to the project by Dwight Allen, Dean of the School of Education, who had used such stamps with illiterate villagers in India. Dean Allen's aim was to offer illiterate villagers a tool with which they could express themselves on paper.

For literacy training, a pictorial vocabulary can offer a perfect bridge from oral language to written language. An articulate pictorial statement enables the total illiterate to glean meaning from symbols on a piece of paper. In addition to psychologically preparing him for written language, pictorial statements can be a very practical tool for helping the illiterate and the semi-literate to decode written language. When we attend a movie in a language we know very little of, we can use the English subtitles to learn more about the foreign language. In like manner, illiterates and semi-literates might be able to use pictorial "subtitles" to written language in order to learn.

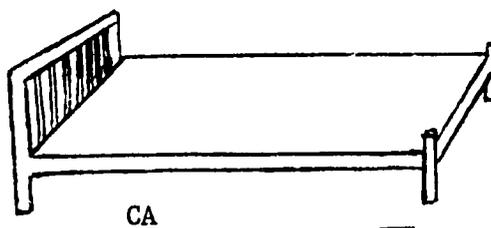
The key to such a system is pictorial stamps which are clear and which elicit a standard response in spoken words from learners. A stamp representing a house must look like a house to learners, and must have the ability to elicit the spoken word house from learners consistently and unfailingly. In order to achieve this, pictorial stamps must be validated at the local level. When found lacking, they must be revised until effective.

Production of stamps at the regional level is a realistic possibility, which would allow for response to local cultures and for successive revision of pictorial stamps. Stamp production depends upon access to machines used in making newspaper plates, and an investment of \$400 in a heat press. Thus, it could well be possible for national literacy campaigns to finance stamp production facilities in most provincial capitals. Once a visual vocabulary of common words is available, they can be used in conjunction with letter and syllable stamps to cover the entire range of teaching and fluency tasks.

To illustrate, I will propose how the lowest levels of organization of written language might be introduced to a group of Spanish-speaking illiterates. The group facilitator might begin by stamping a picture of a house onto a piece of paper and asking the group what they saw. When they responded "house", he could take the syllable stamp "ca" and stamp it directly under the left side of the picture:



He might next introduce the stamp of a bed, and ask the class what they saw. When they responded "cama", he could take the same "ca" stamp, and make an impression below the left half of the bed:



He could then ask if the learners perceived any similarity between the two words. (If he wanted to involve the learners more actively, he could simply deal with the two picture stamps. Only after they had perceived the similarity in sound, would he stamp "ca" under the left half of both pictures.)

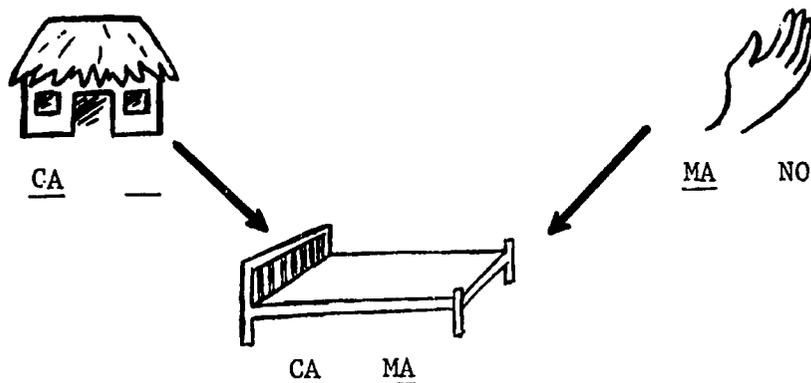
Whichever of the two strategies were used to introduce the syllable "ca", the resulting displays could be left taped to the wall of the building, where learners could refer to it at their leisure. The displays would serve as a self-contained statement which would have meaning to the beginning learner, once the notion had been established that pictures and letters are being used to represent the same known commodity, oral words.

In a strict sense, such visual-written "equations" are not fluency materials, but rather teaching materials. However, once the syllable "ca" had been taught and reinforced sufficiently, learners might begin to manipulate the stamps to produce their own equations or statements. When learners begin to rummage through the pictorial vocabulary in search of pictures to stamp above "ca", the stamps can be said to have become fluency materials. At this point, they are manipulating symbols to consolidate, reinforce, and practice knowledge which has been taught.

Of course, the entire range of established fluency materials can be produced from a picture, letter and syllable stamp set. With various stamp pads, symbols can be color-coded to enhance and complicate fluency games. In fact, the project director reports that the last facilitator

training session offered rubber stamp game production facilities to facilitators rather than presenting them with a set of fixed fluency game versions. Facilitators were given an opportunity to participate in the creation of the materials they would use in their communities. In addition to gaining a greater stake in the success of the materials, they gained experience in working with basic building blocks of symbolic meaning. In all likelihood, this would help them see a game not as an inviolable creation of far-off literacy experts, but rather as a flexible and rather arbitrary combination of basic units of meaning.

Just as the stamps can be used to teach, reinforce and offer practice with the syllable "ca", they can also deal with a vocabulary of syllables, combinations of syllables into words, of words into phrases, and so on up the levels of organization of written language. For example:



There would be limits to the expressiveness of pictorial stamps. It may prove very difficult to portray verbs, prepositions, adjectives, adverbs, etc., in pictorial symbols. However, the aim of the stamps is not to translate great works of literature into pictures, but rather to provide a smoother entry into written language for the beginning student. Insofar as pictures can be created which will suggest meaning

to illiterates, it becomes possible to convey the concept that written language communicates meaning, and to offer a key to the code of written language.

Although a rubber stamp literacy method deals with the nuts and bolts aspect of literacy, its underlying message to the illiterate is that the purpose of written language is expression. For this reason, a rubber stamp kit should be of interest to Freire and Ashton-Warner, both proponents of literacy for expression. Insofar as pictorial stamps can represent "generative themes" or "key words", they can be of direct use to the practitioner of expressive methods. At the same time the house stamp is used to introduce the syllable "ca"; the meaning of the house in family life can be discussed. A follower of Freire might lead a dialogue on the question of which social groups live in which kinds of houses. A follower of Ashton-Warner might ask how learners feel about their houses, and why their home is important to them. With proper development, this comprehensive method could serve both the fluency and the expressive aspects of a literacy training project.

In order to maximize fluency and expressive results, formative evaluation should be applied to the entire rubber stamp method. Pictorial vocabulary would be evaluated not only for clarity (consistent ability to elicit the corresponding spoken word) but also for expressive power. A number of exercises for introducing and reinforcing skills at each level of organization could be evaluated one against the other. Different mixes of fluency and expressive work would be compared. The result would

be a menu of proven exercises and techniques with which each facilitator would be equipped.

EVALUATION OF FLUENCY MATERIALS

As stated above, the project has come under pressures, both external and internal, to evaluate the effects of its fluency materials, and to use the results of this evaluation to assemble packages of sequenced materials of proven efficiency. AID has argued that these procedures would make the results of the project more useful to Ecuadorean institutions, and more exportable to other parts of the world. Internally, some of the project staff have felt that although the materials' appeal can be evaluated according to their acceptance by learners, the materials' educational effects will remain unknown until more rigorous evaluations are undertaken.

Those project staff members whose background is not education, those who grew up in rural Ecuador, see themselves as community developers, and object to diverting project resources to academic research. Those from university backgrounds, who view themselves as professional development educators, have been interested in research questions as well.

What is the most efficient mix between expressive methods and concrete skill practice for non-formal education programs? How much skill practice do learners require at the various levels of organization of written language? Should materials bridge these levels one at a time, or should they deal with larger jumps in level? What degree of learner

initiative should materials demand? Will some types of learners learn in a one stimulus - one correct response format, while others prefer more active participation in learning? Will the preferred learning style vary with the degree of familiarity with the skill being practiced? Will there prove to be a difference in effectiveness between materials where chance controls outcomes as compared to those where learner decisions predominate? Will materials with visual stimuli perform differently than those with oral stimuli? Finally, what costs would be associated with performing the evaluation necessary to answer these questions?

The non-formal education project has, to date, resisted any temptation to execute traditional rigorous evaluation of materials. It was reasoned that, at this early stage in the field of materials development for non-formal education, the prime concern was creating materials that would physically reach rural non-school populations and emotionally attract and motivate them to learn. Insofar as possible, decisions regarding content were left in the hands of the client population. Measuring the efficiency of learning was also an area of little concern to the project.

The project philosophy was that learners should decide for themselves what contents were most relevant, what materials were most helpful. We were content with very crude evaluation of materials. If a card game became tattered, if people said they enjoyed it, and used it frequently, the game was considered a success. When we went beyond this format into experimental laboratory comparisons, we found that large investments of time and energy, together with unsettling intrusions into village life,

produced data of questionable value.¹

Rigorous evaluation could measure only concrete cognitive gains. The staff felt that immeasurable, affective and motivational outcomes were far more important. A game that succeeded in getting together isolated and alienated members of a rural community might show ABSOLUTELY NO COGNITIVE RESULTS, yet it might significantly change the lives of the individuals and the community.

An example regarding community reaction to literacy may serve to underscore the pitfalls of evaluation of cognitive gain. Several learning groups seemed to lose interest in literacy and to stop learning after group members had mastered a few basic words, and had learned how to sign their names. A professional evaluation-oriented literacy project might have interpreted declining fluency game scores as failure. Materials might have been revised, rewards devised for students who continued with literacy training.

Our project reacted first by offering other materials covering other content areas (to satisfy emerging motivation) and secondly by trying to find out why motivation had shifted. We concluded some rural Ecuadoreans may simply have different goals in literacy training than do literacy trainers. Signing one's own name, learning a few basic words seemed to have great meaning to people who may have considered literacy a magical skill invented by city people and denied rural dwellers by

¹ See Project Evaluation Report No. 1.

reason of their inferior intelligence. Once demystified, literacy seemed to have much less attraction. Once a peasant knows he can learn to read, he may no longer feel a need to learn to read. Moreover, there are no peasant-oriented reading materials available. Reading does not increase job opportunities. And peasants do not have a tradition of writing letters or books. If our project had been locked in to concrete cognitive learning objectives and formal evaluation, this valuable insight might never have come to light.

Strong resistance to the execution of evaluations in village settings comes from the community facilitators and the project field coordinators. These people do not see themselves as educational professionals. Their interest is community development, their commitment to their communities and not to the refinement and export of educational materials. They view as exploitative, any attempt by middle-class professionals to use village level reaction to materials in order to further knowledge about educational processes.

Secondly, use of evaluation results to make materials in given content areas more efficient and attractive might be seen by some project staff members to operate counter to the basic project philosophy of letting learners accept, modify or reject materials and methods. Solid evaluation results have proven so costly and time-consuming to obtain, that a large-scale evaluation effort would mean a significant shift in project priorities. If more energy went into EVALUATION, less energy would go into materials development and distribution. To some on the staff, this

would amount to the tail wagging the dog.

Those materials which can be evaluated are those which produce measurable cognitive outcomes. Such qualities as self-esteem, efficacy, conscientization are far less susceptible to measurement. Evaluation would initiate a tendency for emphasis to be placed upon those materials which had been evaluated, and which had proven effective. This would, in the judgement of field personnel, jeopardize the goals of the project.

There is one final argument against an evaluation that would lead to a curriculum or a structured, predetermined sequence of proven literacy materials. A slick sequence of materials which could make learning easy and effortless might actually operate counter to the goals of self-esteem, efficacy, and conscientization. Learners might come to see their achievements as a function of expert materials, and less as a product of their own initiative. Their dependence upon outside experts might grow, at the expense of their faith in their own ability to better their own situation. If there is one central message to non-formal education, in the opinion of this project, it is that educational and social change must be allowed to "bubble up" from the roots, rather than "trickling down" from centralized bureaucratic organizations.

The above arguments against traditional rigorous evaluation and revision of literacy-fluency materials are very real to the non-formal education project in Ecuador. The impulse to undertake such evaluation comes mainly from the American participants in the project: the USAID funding agency, and the University of Massachusetts professional educators. The

project has strived to conduct open and honest debate upon the proper role of Americans in the development of education in Ecuador. It is our belief that major decisions should be made by the Ecuadoreans on the staff. Therefore, some accomodation will have to be found between the legitimate desires of USAID to know that its money is yielding effective educational methods, the legitimate desire of UMass educational professionals to gain knowledge about the learning process in non-formal education, and the project's overriding commitment to the principle of Ecuadorean control over a project that influences the development of education in Ecuador.

APPENDIX

Name: El Chulo

Developed by: Edgar Jacome, Mauro Jacome

Objectives: to offer practice in:

1. encoding pictures representing animal names into written language
2. decoding written animal names into spoken words and pictures
3. to give an educational aspect to a traditional Ecuadorean betting game

Materials: Each face of three dice contains a picture of an animal. The game board consists of squares each of which contains the written name of an animal and the number of points for the animal. Each card contains only an animal name.

No. of participants: two or three players and a group leader

Process: The cards are shuffled and dealt to the players. Players choose three of their cards, and place them on the corresponding squares on the board. These represent their bets on which of the animals will emerge when the dice are thrown. Since some of the animals have (arbitrarily been given higher point values than others, they will tend to favor certain animals in their betting. The frog (rei pepino) is the most highly valued. When a player successfully bets on the grog, he automatically wins that game. Players keep a point total representing values of their correct bets.

- Name:** Concentration
- Developed by:** Pat Guild, and others
- Objectives:** To aid in memorization of different types of information and associations necessary for the development of literacy.
- Materials:** Each set consists of up to 15 pairs of cards. A pair can consist of identical letters, syllables, words, pictures, or complementary pairs: a picture and the equivalent written word, a first SYLLABLE and a last syllable of a two syllable word.
- No. of participants:** from two to ten
- Process:** Cards are laid out face down in rows. The first player turns up one card, and then a second one. He hopes for a match. All the players try to remember the location of the cards they have seen. The next player turns over one card and then another. Whenever a player successfully makes a pair, he takes the cards, and places them in front of him. He also takes another turn. Play continues until all cards have been matched. The winner is the person with the most matched pairs.

- Name: Lottery
- Developed by: Eugenia Caceres
- Objectives: This game was intended in order to develop the following skills which are basic in reading and writing:
1. audiovisual association: object-spoken word-written word
 2. recognition of letters
 3. recognition of words
 4. familiarity with written words
 5. internalization of written symbols
 6. acquisition of vocabulary
- Description: Players match word cards with the corresponding pictures on their game boards.
- Materials: Six game boards divided into twelve squares (4x3). On each square is a drawing of an object: an animal, plant, etc., 72 small cards, each one containing the name of one of the objects represented on the large cards. The first letter of each word is written in a different color from the rest of the word, in order to place emphasis on the specific letters of the alphabet. The attempt was made to have each letter of the alphabet appear at the start of at least one word.
- No. of participants: From two to six, also one facilitator, who knows how to read.
- Process: Each player receives a game board. The small cards with the words written on them are placed in a bag, and the facilitator begins drawing them out, one by one. He reads the word (or simply shows it, encouraging the players to read it). He delivers the card to the player who has the drawing which corresponds to the word on the card. For example, the word "burro" is given to the player who has a picture of a "burro" on his card. The player places the card on top of the square with the picture of the "burro." The first player who covers all of his pictures is declared winner.
- Options: What type of response is asked of the learner?
1. With beginning learners, the facilitator could read out the card he drew, emphasizing the first letter. Players would repeat the word and then scan their cards, pronouncing the words represented in their pictures, searching for the picture corresponding to the word which had been read aloud. The player who identifies the correct picture is given the card by the facilitator.
 2. With advanced learners, the facilitator could require that the learners write the word on the blackboard, or even write a phrase or statement using the word in order to receive the card with the word on it.

Comment: Unlike other fluency materials, this is an audio-visual game. In most learners, a tested picture should suggest the proper word in most learners' minds or inner ears. They then have only to translate this word to written form.

This task is quite different from that of the letter dice, where the learner must imagine and recreate the mental image of a word from letters and then express it in letters. As a result, this game may allow purer concentration on literacy as "a code."

Name: Labeling for Literacy

Developed by: Carla Clason

Objectives: To make written language part of village life.

Materials: Writing implements

Process:

In a village where people are involved in literacy training classes, a campaign to label places and things could take place. For instance, names could be written up for areas in the village or surrounding it. Most of these places already have names, therefore, a sign could be put up with the written name of the place on it. A hilly area might be called "El Cerrito del Carmen," someone could then make a sign out of wood and paint that name on it. Similar things could be done with names of roads and with distances: "Camino a Panajachel, 5 kilometros;" with names of rivers (streams) and bridges: "Rio Magdalena, Puente Irun, etc." Signs could be placed in front of the local store (if there is one), "Tienda Santa Rita." Inside the store there could be an area designated for a list of things one could buy with the prices. A blackboard could be made by painting a small part of the wall with black paint. If chalk can't be acquired, there are some types of stones which mark, and often one can find pieces of chalk-stone in the area or near the roads. (At least in Guatemala, the government paints the kilometer signs with "cal," one can find pieces of this along the road and one can write with it!) People could also write messages on this board if they wanted to.

Most villages have something which resembles a market day, people get together on certain designated days and sell their products. All it would take would be one person to come along and label his or her merchandize: "arroz," "frijoles," "maiz," "café," etc. People would soon inquire what the signs were for, what they said, and some might want to make some of their own. This might not be so difficult, because many Indian people know how to make dyes from various plants and roots in order to dye the yarn with which they weave. Some of this could be used as a type of ink. A stick could be used to write with. If paper is available, that can be used. But paper is often absent in rural areas; therefore, pieces of wood could be used, or bark from trees. A blackboard could be constructed out of a large piece of flat wood which could be painted black, and this could be placed in the center of the market area. If one person started writing a list of market prices, or products available, or announcements or messages, a crowd would soon gather to see what was happening there. This could be used for a lesson, because curious people might want to know what the man was writing. Soon this could develop into a reading lesson, and perhaps people might try to immitate some of the letters too.

At the local church, a home-made blackboard could also be put up for announcements and messages. The board in the market place could also be used for information for farmers, explaining in simple terms how to use fertilizer, information about various seeds, etc. Health information could also be written there.

Name: Letter Chips

Developed by: Carla Clason

Objectives: To offer practice in:

1. Recognizing and decoding letters and combinations of letters.
2. Assembling words from letters.
3. Encoding sounds into sequences of letters.

Materials: 66 letter chips, 1/2" x 1/2" containing the letters from the letter dice. Several additional blank chips serve as "wild cards," and can be used to represent any letter the player chooses. Each chip also has a number written in the lower left corner, which is used for scoring purposes.

No. of participants: from two to four

Process: Each participant chooses seven chips from the pile, without looking at them. In order to decide who goes first, each player reviews his letters for the one closest to the front of the alphabet. If there is a tie between two players, they present a second chip. The player closest to the beginning of the alphabet begins play. Play will rotate clockwise beginning with the first player.

The first player tries to form a word using as many of the seven letters as he can. If he has successfully formed a word, he lays out the word on the table in front of him and draws the number of chips he has used, in order to once again have seven chips.

The second player must try to build words from the existing word (scrabble-style). He may lengthen the word or build vertically from one of the word's letters. No new word may follow a complete word, unless the player has a blank chip to place between the old word and the one he is forming:

```

      D
      O
C A S A □ C O M O
A
S
O

```

If a player can successfully make an addition to an existing word to form another longer word, he may do so. If a player can form no new words, he may try to replace letters within an existing word to form a new word. He may do this as long as his action does not upset other words in the game.

Scoring: Each player keeps a tally of all the numbers on the chips he has successfully played. If he creates a new word by changing letters within or adding letters onto a pre-existing word, he receives full credit for the letters making up the new word. When a player forms a word of five letters or more, he automatically gets ten points added to his score.

Options: Vowels may be made one color and consonants another. Points which were originally assigned randomly, might be different values for consonants and vowels.

- Name:** Word Bingo
- Developed by:** Patricio Barriga, James Hoxeng
- Objectives:** To offer practice in recognizing and reading words.
To offer a non-threatening way for learners to practice writing words.
- Materials:** Nine common words arranged in a different configuration on each game board to form two diagonal lines. Below each word is a blank space.

TIENDA			LECHE
	MADRE		ESTO
		TODO	
	CASA		AQUI
ALLA			CULPA

The group leader has a stack of cards containing the same words.

No. of participants: from one to ten players and a group leader

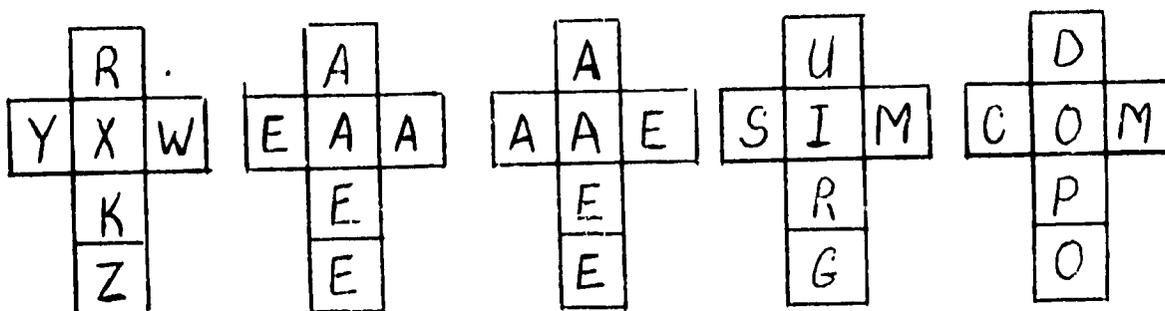
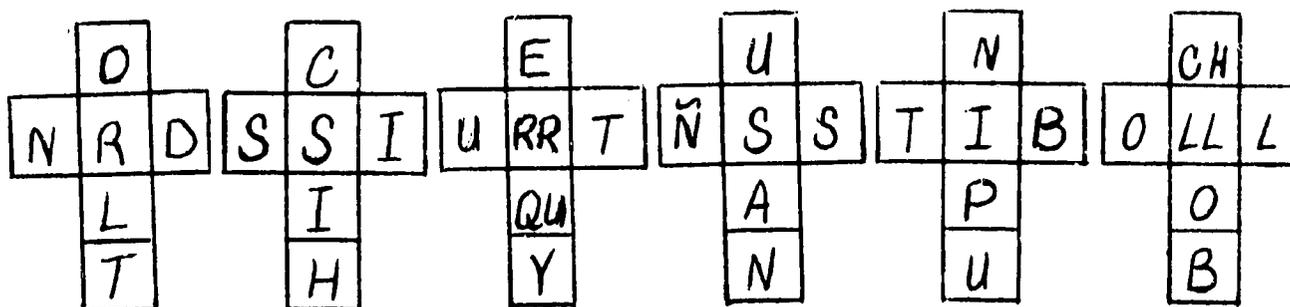
Process: The facilitator chooses a card, and holds it up for the learners to read. Learners read the word, and search for the word on their boards. When they find the word on their board, they will either mark the corresponding blank with a bean or copy the word with a pencil, depending upon their skill level. The first player to complete a diagonal line wins.

Name: Letter Dice

Developed by: James Hoxeng, Amparo Borja

Objectives: To offer practice in 1. recognizing and decoding letters and combinations of letters, 2. assembling words from letters, and 3. encoding sounds into sequences of letters.

Materials: 11 wooden dice, approximately 1 1/2" on a side, each face of which contains a letter according to the following frequency distribution of letters in Ecuadorean Spanish:



No. of participants: from one to 20

Process: 1. "Finding a word:" Players search for words from the letters showing after the dice have been thrown. The first player to visualize a word declares the word, and tries to create it from the letters showing. After group confirmation of it's correctness, play resumes as players try to find other words. Play continues until the time limit is reached. The player who has formed the longest word is declared winner.

2. "Building a word:" The first player places a letter from one of the faces of a dice in front of the group. The player to his right chooses another from the pile of dice, and places it next to the first letter. The object is to be the player who completes a word. When a word is completed, the next player tries to add letters to form a longer word. At any point in the game, one player may

challenge the player who has just added a letter. If the latter is not able demonstrated that he was building toward a legitimate word, he is out of the game.

Alternately, the game can be structured so that the player who completes a word has points scored against him. This is probably a more difficult version than the previous one. Both of these "building a word" versions are more difficult than the "find a word" version, since they require a more directed and active recall of specific words and their spelling.

3. "Word listing competition:" Players compete to form the largest possible number of words from one roll of the dice in a given amount of time. People can compete as individuals or as teams. In either case, participants alternate between two roles; onlookers who recognize and monitor words formed by others, and active composers of words. This version is the one most popular in Ecuador to date.

Name: Letter Rummy

Developed by: Pat Guild

Objectives: To offer practice in:

1. Recognizing and decoding letters and combinations of letters.
2. Assembling words from letters.
3. Encoding sounds into sequences of letters.

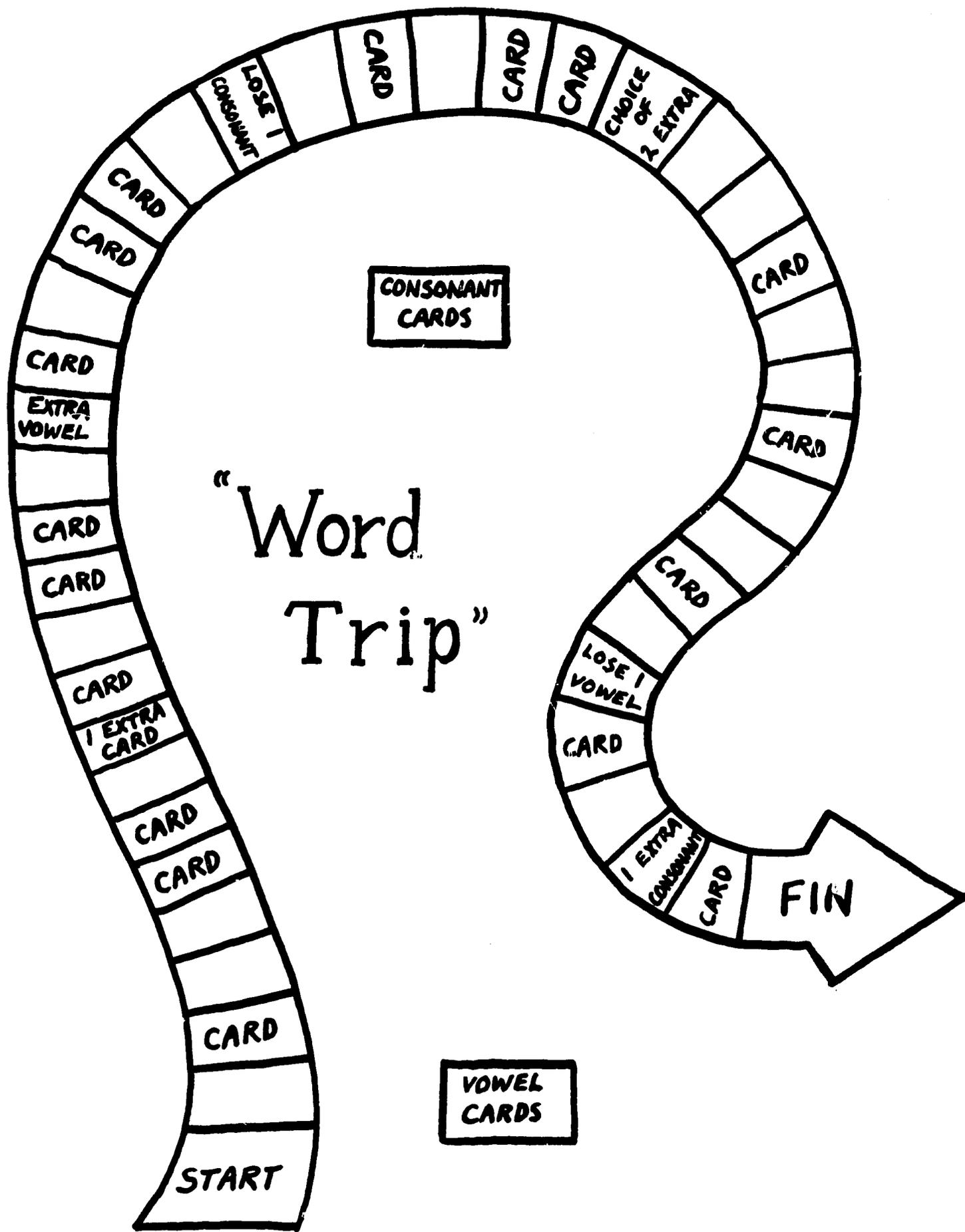
Materials: The 66 letter rummy cards contain the letters on the faces of the 11 letter dice (see technical note no. 6). Players gain practice in reading, spelling, and forming words from combinations of letters.

No. of participants: 2 to 10

- Process:
1. "Finding the words:" Deal out ten cards face up. Players take turns trying to form words from the letters showing. Each letter used successfully in a word is worth ten points. As words are formed, they are written down so that the letters can be used again to make new words.
 2. "Building a word:" Each player receives ten cards. The first player places a card face up, in front of the group. The second player adds a letter. The last person to place a letter completing a word receives one point for each letter in the word.* If, at any time, a player believes that it is impossible to form a word with the sequence of letters showing, he may challenge the last player to have added a letter. If the last player cannot identify a word which can be formed by adding more letters, the challenger receives a point for each letter showing. If, on the other hand, the challenged player can demonstrate such a word, he receives a point for each letter showing.
 3. "Letter Rummy:" Each player is dealt five cards. The other cards are placed face down in a pile. The first player to the left of the dealer draws a card from the deck and examines his store of letters to see if he can form a word. If he can, he places the cards face down in front of him, and then discards. If he cannot form a word, he simply discards. Play continues, until one player has gotten rid of all the cards in his hand. If the words he has formed are judged to be correct, he is the winner. Some variations in the game may be introduced by allowing players to pick up cards from the discard pile instead of drawing. Scoring can also be done according to the number of letters used in each word. Rarer letters could be accorded more points.

* Any time a player is unable to add a letter, he may pass.

- Name:** Word Trip
- Developed by:** John Hatch
- Objectives:** To offer practice in:
1. Recognizing and decoding letters and combinations of letters.
 2. Differentiating consonants from vowels.
 3. Assembling words from letters.
 4. Encoding sounds with sequences of letters.
- Description:** This is a simple literacy game which combines board play and some strategy with word skills.
- Materials:** Board, a single dice, tokens for players, vowel cards, and consonant cards.
- Process:** Low player on dice throw goes first. Each player draws 5 vowels (cards). The first player rolls dice and advances according to the number rolled. Then the second player rolls and advances. A consonant card is drawn when a player lands on a "card" square. When the finish is reached, each player has 3 minutes to form as many words as possible with his letter cards. Each opponent then has 1 1/2 minutes to form new words with the same cards. Then the second player to finish has 3 minutes to form words with his cards and each opponent has 1 1/2 minutes to form new words from the same cards.
- Scoring:** 1 point is scored for each letter in a word. If a player forms a word with his cards before he reaches the finish, he scores 3 X the number of letters in the word, but the letters cannot be used again. Wrongly spelled words lose points equal to the number of letters. A target word decided upon at the start of the game may be used. A player who forms the target word scores 4 X the number of letters if the word is formed before finishing; 2 X the number of letters if formed after reaching the finish.
- Operating Time:** 20 minutes to 1 hour depending on the number of players.



- Name:** The Freire Game
- Developed by:** John Hatch
- Objectives:** To offer practice in:
1. Recognizing and decoding syllables and combinations of syllables.
 2. Assembling words from syllables.
 3. Encoding sounds into sequences of syllables.
- Description:** This game is based on the Freire approach, hence the title. A word is chosen (i.e., Favela). It is broken down into syllables with the vowel in each syllable changed to include all of the vowels:
- | | | |
|----|----|----|
| Fa | Ve | La |
| Fe | Vi | Le |
| Fi | Vo | Li |
| Fo | Vu | Lo |
| Fu | Va | Lu |
- Materials:** Each of the syllables is printed on a card. The total cards needed for each word constitutes the deck. For Favela, there is a 15-card deck. Another word is added for each player and likewise broken down and made into a deck, meaning a minimum of one deck per player is needed.
- No. of participants:** 1 to 10, or more.
- Process:** Each deck is shuffled and placed face upwards. In order, the players draw one card then a second until all of the cards are distributed equally to all of the players. Then, within a given time period, each player must form as many words as possible from the syllables which he has drawn.
- Scoring:** May not be necessary. Could be based on the number of words formed, length of words, or number of syllable cards utilized in the words formed.
- Options:**
1. At the end of each round of drawing each player may make a word. Players may build on others' words.
 2. Players may use each others' words to make a phrase or sentence.
- Comment:** This game is at the idea stage of development. It has not been completed, played, or tested. Feedback is needed.

- Name:** Jigsaw
- Developed by:** Carla Clason
- Objectives:** To demonstrate to the beginning learner, in a very non-threatening way, 1. how syllables combine to form words, 2. how words combine into sentences which convey meaning.
- Materials:** The game consists of a jigsaw puzzle made up of 28 pieces. Each piece contains a syllable and part of a pictorial design.
- No. of participants:** open
- Process:** The puzzle is dissembled and the pieces are placed face up on a flat surface. Players assemble the puzzle with the assistance of three types of cues: the shape of the interlocking puzzle pieces, the parts of the drawing with its various colors, and the syllables on the pieces.
- After the puzzle has been assembled, players must read the written statement. In doing this, they have the aid of the pictorial design, which makes the same statement visually.

- Name:** The Sentence Game
- Developed by:** Jock Gunter
- Objectives:** To develop fluency in the formation of simple sentences from words, to gain an intuitive feel for grammar and syntax--for how different types of words play different roles in sentence building.
- Description:** By combining cards containing words and phrases, players assemble sentences and statements. Sentences become more complex as new types of cards are added.
- Materials:** The game consists of cards with words and phrases, which have been drawn from the players' vocabulary. The cards should at first fall into three categories: subjects, verbs, and objects. The play involves assembling different combinations of cards and reading the statements as they are created.
- No. of participants:** One or more players, who are already at home with letters and syllables, one facilitator with some knowledge of sentence structure.
- Process:** The simplest version of the game involves cards structured so that any sequence of a subject card, a verb card, and an object card will make sense. All cards fit a rigid sentence format. The three different types of cards are color coded, so that players just beginning to build sentences are assured of success. Any red card followed by a blue card followed by a yellow card makes a correct sentence.
- At the start of the game, the cards are blank. The facilitator elicits words and phrases for the learners, which he writes on the appropriately colored cards. Each player is then dealt a number of cards from each category. One player leads off with a subject card, the next player follows with a verb card, and the third with an object card. Players read aloud and discuss the resulting sentence. Play rotates around the table.
- Options:** 1. Alternately, a solitaire version might appeal to certain learners. With one person building the sentences, the statements would be more his own creation than in the case of two or more players.
- With categories color coded, there would be few mistakes. Positive reinforcement would be almost ensured. Would the players become bored? One must recall that this version is aimed at those learners who are just beginning to explore the expressive possibilities of written language. Each sentence is partially his own creation. Seeing meaning emerge from words, and reflecting upon that meaning may be sufficiently interesting to hold attention for quite some time.

2. One technique for maintaining interest would be humor. Cards can be structured to produce humorous statements:

the stately queen	climbed	on top of the bus
the dog	drank	his <u>chicha</u>

When the subject creates an image which conflicts with that of the verb or object, humor can result. Of course, such humor must be created in the local communities in order to be effective. One way of doing this would be to leave some cards blank when play begins. Players would be encouraged to fill them in as blank cards were dealt them. Names of local personalities as subject or object cards could lead to humorous sentences.

3. Other content areas could be built into the game in order to maintain interest. In order to explore political realities, half the cards could pertain to the lifestyle of the rich and half to the poor.

Half could pertain to the city, half to the country. Certain statements which emerged would seem natural and true to life. (The businessman sped through the village in his car.) Others would seem highly unlikely. (The rich man's son died of malnutrition.) In both cases, reflection and discussion of political realities could result.

In a similar manner, nutrition could be used as content. Statements which emerged during the game would be evaluated as either good or bad nutrition habits. (The boy ate 6 potatoes.)

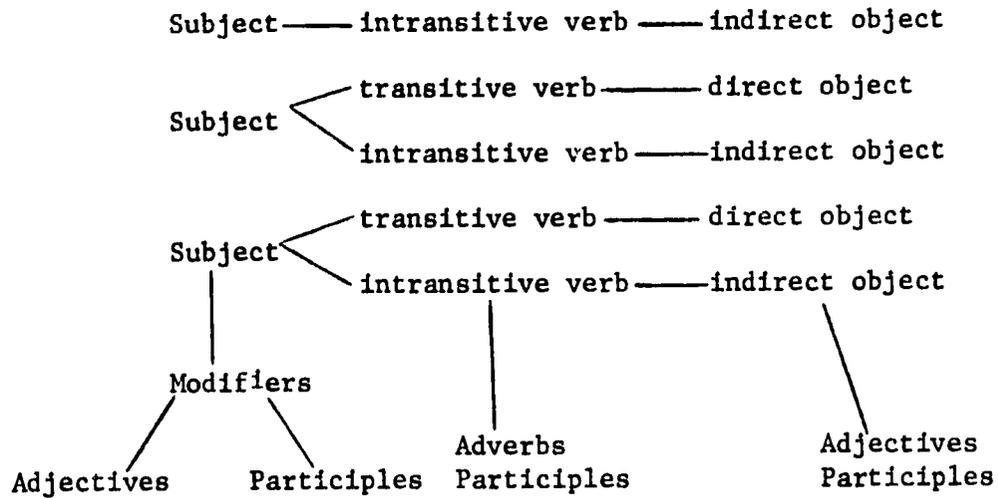
4. For students at a higher level, the game could be complicated in various ways. Removing color coding of card categories would force the student to decide how a given card would fit into a sentence. He would no longer be able to mechanically sequence according to color. He would take a more active role in the formation of the sentence, based upon his growing understanding of sentence structure.

5. To further complicate the game, the sentence format could be loosened, expanded, or abandoned. Some verbs would be transitive, some intransitive, some active, some passive. Each of these verb types call for a different type of object. The more the categories of card, the more players one could involve. One player could be given all the adverbs. This "adverb specialist" could add a word wherever he thought it appropriate. It might be possible to teach basic grammar and syntax without ever introducing the technical al jargon.

Comment:

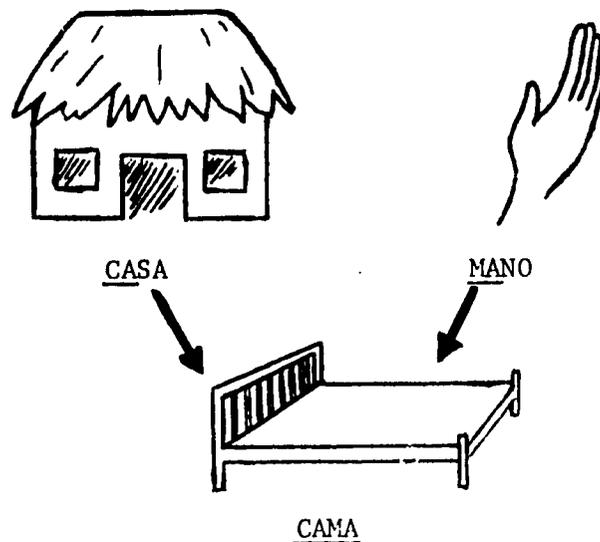
The aim is to provide an in-between game, for learners who are proficient in forming words from letters, but reluctant to write Ashton-Warner style stories.

With the color coded game, there is no risk to the learner, since every attempt is a guaranteed ok sentence. As the game is complicated (removing color code, complicating sentence structure) the learner assumes increasing control over the statements he produces. They become less random and more his own creative expression. Thus, the learner can build toward self-expression in steps:



Are grammar and syntax helpful in building toward verbal expression? Can they be taught non-formally, by never mentioning the above technical terms? Testing the game might suggest answers to these questions.

- Name:** Rubber Stamp Literacy Method
- Developed by:** Jock Gunter, Dwight Allen
- Objective:** To try to build one flexible package which can:
1. offer instruction and practice on several levels:
 - a. sound-letter associations
 - b. syllable formation
 - c. word formation
 - d. phrase and sentence formation
 2. interact with the self-expressive goals for rubber stamps.
- Description:** Rubber stamp vocabulary of letters and pictures.
- Materials:**
1. stamps with pictures--visual representations of key words. Where possible, words should be generated at the community level by Ashton-Warner style sessions. Pictures must be tested to ensure that they evoke the words they are meant to evoke.
 2. stamps of all the letters and some commonly used syllables.
- No. of participants:** From one to twenty players, and a facilitator with elementary reading knowledge.
- Process:**
- Teaching letter-sound associations-- The facilitator takes several picture stamps which represent words beginning with a given letter or syllable (cama, casa, cabo), stamps them and asks what they have in common. Students recite the words, and perceive the similarity in sounds. The facilitator can then introduce the written symbols "ca," and stamp them next to all three picture stamps representing the words cama, casa, and cabo. This can be left as a wall display, so that learners can reinforce this association in their minds. A vocabulary of basic syllables and letters can be introduced in this way.
- Reinforcing letter-sound associations-- Once the group has learned a few letters and syllables, the learners can be divided into pairs, and work with the letter and picture stamps corresponding to the vocabulary already introduced. One learner stamps a picture, the other must stamp the correct beginning syllable of the word represented.
- Teaching written words-- The facilitator produced two picture stamps, whose first syllables are known. Students are then induced to transfer these syllables to another complete word:



Reinforcing written words-- Students could divide into pairs or teams, each with a pile of picture and letter stamps (which had already been taught). One student stamps a picture, the other must respond by building that word from letters.

Teaching written statements-- A combination of picture stamps are strung together. Corresponding words are built from the letter stamps, directly below the picture story. By showing how different picture statements translate into different types of word statements, the facilitator can help the students begin to see different types of sentences.

Reinforcing written statements-- One student makes a picture puzzle, which his partner must unravel and express in words.

Comment:

Once the above sequence of steps has been taken, students may be well on their way to visualizing stories, fotonovelas, and radio scripts. It would be fascinating to see if visual symbols, stored spoken vocabulary, and letter symbols, might interact to propel the learner more rapidly toward self-expression goals. Working in three media of thoughts (visual-oral-written), two of which are known, and non-threatening, may speed up acquisition of fluency and confidence in the third medium--the written language.

At all steps, learners should be encouraged to display what they have created. Letter and syllable associations to picture symbols, words, and picture-word statements, would be of value as displays. Learners could reinforce what they have learned, and potential learners could be attracted by the displayed materials.

If the notion of display of exercises caught on, it might also spark the desire for creation and display of self-expressive projects. Folk sayings, community journals, village histories, all could be invented by advanced learners and portrayed in both pictures and words simultaneously. To a degree, each display could be a puzzle and learning opportunity for learners at all levels, much in the way that sub-titles on a foreign film can help you understand a language you are only vaguely familiar with.

How to physically display materials? Newsprint, taped on the wall would be one solution. Stamping directly onto white walls on the inside and outside of buildings (which could be painted over periodically) might catch on in some communities. Carla Clason has also suggested use of indigenous materials for washable dices, which could be put in stamp pads.

TECHNICAL NOTES OF THE ECUADOR NON-FORMAL EDUCATION PROJECT

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Center for International Education
School of Education
University of Massachusetts
Amherst, Massachusetts 01002