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Indigenously authored and illustrated literature: An answer to esoteric notions of literacy among the Numanggang adults of Papua New Guinea

Barbara J. Hynum

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INDIGENOUSLY AUTHORED AND ILLUSTRATED LITERATURE:
AN ANSWER TO ESOTERIC NOTIONS OF LITERACY
AMONG THE NUMANGGANG ADULTS
OF PAPUA NEW GUINEA

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education:
Reading/Language Arts

by
Barbara J. Hynum
December 1999
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Approved by:

Dr. Adria Klein, First Reader
Deborah Stine, Second Reader
ABSTRACT

The Numanggang adults of the Morobe Province of Papua New Guinea are caught in the midst of a cacophony of encroaching foreign languages. Until this century, their isolated existence in the rugged Saruwaged mountain region protected their language and culture from the intrusion and influence of other ethnic groups – even close neighbors. With the coming of Western exploration and technology, these approximately 1,000 adults were faced with the difficult task of integrating the foreign manner of life brought by traders, explorers, missionaries and entrepreneurs with their traditional world view.

Due to historic Numanggang cosmology, and the perception that special words could be used to manipulate deceased ancestors to endow them with prosperity, the introduction to literacy by the wealthy foreign invaders in unfamiliar languages became subject to mystical interpretation. A pervasive cargo cult mentality throughout the Madang and Morobe region developed in the early part of the century and reinforced the propensity to discover the secret of power. Together with the foreign nature of literacy, both in literature and pedagogy, this predisposition to find access to the cargo created a climate in which reading and writing was interpreted by some as a means of receiving the esoteric knowledge needed to obtain material prosperity through the spirit world.

With the coming of a linguistic team sent by the Summer Institute of Linguistics (SIL) in 1978, and the subsequent analysis of the Numanggang language, these adults now have the opportunity to explore literacy in their mother tongue for the first time. While valuing their language as the vehicle for oral communication, the Numanggang do
not yet realize the potential of written language to enlarge their communicative repertoire. A literacy curriculum aimed at drawing unambiguous parallels between daily oral language and written language will hopefully aid in the understanding of the relationship that exists between listening and reading, and between speaking and writing. Reading and writing must be perceived as another form of communication available to every member of the society, not simply those leaders who are privy to special esoteric knowledge.

In order to accomplish this goal, indigenously generated stories, illustrated by Numanggang artists, will form the core of the literature used in the adult program. “Verandah stories” – traditional oral genre told and re-told on verandahs every evening – will be offered as a proposed solution to correct the misperception of literacy. To demystify the written word, only stories that are accounts of actual events, historical or current, will be used in the initial phase. Writing will center around the recounting of personal experiences. To create a balanced literacy program, this phase will also feature the use of a transfer primer from Melanesian Pidgin to Numanggang. Future phases of the program for the development of fluency and comprehension will take the form of writers’ workshops in which more material for the initial phase will be published.

A community centered program using indigenously generated literature that reflects oral communication patterns and purposes, and local art will foster the potential for ongoing literacy learning. It is hoped that the corporate use of literacy for functions of oral language will increase the viable avenues of meaningful communication for everyone – a wonderful possibility for a society that relishes story time.
ACKNOWLEDGEMENTS

Sorting through the literature while working on this project, I felt as if I were hunting for precious treasures that had been buried on dusty library shelves. The resultant discovery has confirmed my conviction that we all build on the work of others. Learning occurs in a social venue. We need one another. I could not have done this project alone.

To those who pursued research in the past and documented their findings we owe an immeasurable debt. Because the purpose of my project is to develop a literacy program for an ethnic group which does not have a literary tradition, my sense of gratitude for the pursuit of knowledge in Western culture has deepened.

I am also grateful for the tireless dedication of the staff of California State University at San Bernardino. Joe Gray inspired me to reconsider my perspective on reading; Deborah Stine believed in me; Dr. Klein challenged me to excellence.

Throughout the long months of work, my husband, David, and my children, Carolynne, Nathan, Jeremy, and Beth Anne provided the support and encouragement I needed to continue. My husband’s insights into the Numanggang culture and language were invaluable.

Without my father and mother, Jim and Bertie Knowlton, this project would only be a dream. As a high school teacher, both in the United States and in Papua New Guinea at Ukarumpa International High School, my father’s example inspired me. My mother has prayed daily for health and strength for me every day of my life. Together they provided the foundation on which this project is built.
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Dedicated to my precious Numanggang friends

who have waited so long to read in the language of their heart
CHAPTER ONE: STATEMENT OF THE PROBLEM

Developing a literacy program for the Numanggang adult semi-literate requires a comprehensive understanding of the national and local issues that influence the climate in which a culturally relevant program must be created and implemented. This chapter will introduce the challenge, suggesting indigenously authored and illustrated text as a solution, and will propose an appropriate reading model as the basis for pedagogical strategies for the program.

Overview

The nights come gently to the mountainous village of Tumun in Papua New Guinea. (See map, Appendix B on page 341). First the crickets and frogs begin their evening chorus, welcoming the Numanggang who are returning from their gardens carrying food and firewood. As the sun whispers goodnight and nestles in the mountain shadows, flickering firelight springs up from every verandah. Family and friends gather around as the evening meal is being prepared. The time for stories has come once again.

After tucking our children in bed, David and I listen to animated conversations and hilarious peels of laughter mingling in the evening air. As we hear the nightly, joyful symphony, we understand the beauty of a society rich in oral tradition and the tremendous responsibility we have in serving these people by teaching them to read and write in the language of their heart.

The exhilarating face-to-face verandah encounters contrast poignantly, however, with the dour gatherings at the church where communication takes place in a mixture of Numanggang, Kate (a coastal Papua New Guinean language), and Melanesian Pidgin.
(the trade language). A typical meeting finds an elderly man cradling a black book in his callused hands, painstakingly deciphering the print and announcing word, by halting word, the text for the service. The sea of Numanggang congregants, squeezed tightly on the slender plank benches, nod either from the heavy tropical heat or from apathy.

If the pastor could read to them in their mother tongue, would the community as a whole experience a paradigm shift in their perception of literacy? Could the written word become another mode of communication, just as viable and valuable as the evening oral story times? Numerous studies done by the Summer Institute of Linguistics support affirmative answers to these questions (as examples see: Hodgkin, 1996; Bergmann, 1996; Day, 1993). The road to achieving an ongoing and indigenously generated adult literacy program, however, is strewn with obstacles.

The United Nations Educational, Scientific and Cultural Organization’s (UNESCO) 1985 statistics, report that 98% of the adult illiterates in the world live in the Third World (Newman & Beverstock, 1990, p. 22). According to a paper presented by Willie Jonduo (1997), the Director for the National Literacy Awareness Secretariat in Papua New Guinea, at the Asia-Pacific Regional Consultation on Adult Education Conference, there are only fifty vernacular or Pidgin adult literacy programs with a total enrollment of 1,071 adults in the entire Morobe Province. In all of Papua New Guinea, there are 558 adult programs compared to 3,042 programs for children (p. 45). There are approximately 1,000 Numanggang adults over 40 years of age who are classified as illiterate or semi-literate in a foreign language. Less than ten percent of these can read in
their mother tongue (D. Hynum, personal communication, November, 1998). A small percentage can read in either Kate or Pidgin with some degree of fluency.

Papua New Guinea recognizes the need for the promotion of literacy in general, and literacy in the vernacular, in particular. The Education Sector Review calls for a major reconstruction of the educational system:

The present curriculum does not meet the learning needs related to Integral Human Development, Papua New Guinean ways, social and economic improvement and nation building. In short, it does not prepare Papua New Guineans for life long learning and the realities of life after leaving school. (Elementary Strategy Trial Draft. Preamble, 1991, p.1)

Further complicating the challenge is the phenomenal number of indigenous languages in this small country (over 860 distinct languages according to Spaeth, 1997, p. 2). Few of these possess an orthography, let alone vernacular literature. The task is beyond the present ability of the newly self-governing nation to tackle alone. With the multiplicity of languages and the current literacy rate of 45.1% (adults and children nation-wide), Jonduo (1997) credits the efforts of Non-Governmental Organizations (NGO) for their dedicated work in community based literacy programs (p. 46).

The purpose of this project is to develop a culturally appropriate literacy program and curriculum for the adult members of the Numanggang community. Societies in which the language has been only oral present unique challenges to literacy development. Before the community will fully support a program of literacy, the relationship between oral and written language must be modeled as it is in literate societies. Unless reading and writing are understood as another means of daily communication, the Numanggang will not be motivated to pursue vernacular literacy.
Lack of a tradition of literacy is not the only obstacle to be overcome in the development of a viable vernacular literacy program for the Numanggang adults. Traditionally, they have perceived literacy as shrouded with mystical properties. The traditional cosmology consisted of not only the living, but also the dead and creative beings who could be manipulated to provide knowledge and material treasures for the living if the proper incantations were spoken and the correct rituals performed. Words, uttered in a specific manner, could be the "road" to obtaining this mysterious "cargo."

A further complication in relation to community literacy is the traditional, exclusivistic ownership of knowledge. Only "big men"—important leaders—were privy to the special endowment of power that gave them access to secret knowledge which allowed them to communicate with and manipulate spirit beings (Cochrane, 1970; Lawrence, 1964; Worsley, 1970). Because social and technical success were indications of ability to communicate with ancestors and deities, the arrival of Europeans with their advanced technology indicated to the coastal Papua New Guineas that the white men had indeed learned the secret to obtaining the cargo. The foreigners were logically placed in the category of "big men." The arrival of explorers, traders, missionaries and entrepreneurs throughout the region stimulated the development of numerous cargo cult movements. These movements combined traditional cosmology and epistemology with new perceptions of introduced foreign cultures in a variety of systems (Lawrence, 1964; McElhanon, 1969; Worsley, 1970).

Written words in foreign languages, used often by these foreigners, apparently held supernatural power (Cochrane, 1970; Lawrence, 1964). Merchants wrote letters and
after a time, goods appeared in the stores. Pilots read manuals; explorers read maps; soldiers read orders; missionaries read the Bible. All of them enjoyed a higher standard of living than the natives. Because, in the traditional view, particular words and combinations of words were thought to be invested with power (Kulick & Stroud, 1993), reading and writing in these foreign languages perhaps held the secret to that power (Meggitt, 1981; Street, 1987; Worsley, 1970).

Concluding that cargo cult mentality pervades the very air the present day Numanggang breathe, however, smacks of paternalism. Over half a century of contact with Western culture has tempered expectations and the newer generation have adopted many outward appearances of the introduced life style. A critique of current thinking is elusive due to several reasons which will be discussed later. Yet, there are sufficient indications to warrant care in the development of literacy materials. If Western literature, curriculum, and pedagogy are blindly adapted for use in the Numanggang program, the esoteric and exclusivistic perception of written languages may inadvertently be reinforced. An effective literacy program must clarify the relationship between oral and written languages for use in daily oral communication. Rather than being perceived as ritualistic incantations known only to the spiritual elite, reading and writing must reflect the oral traditions experienced every evening on the verandahs. The ownership and development of the literacy materials must be placed in the hands of every Numanggang, not just those who learn the foreign secrets.

Due to the necessity of building the program on meaningful texts in order to combat possible mysticism, the curriculum will be based on indigenously authored and
illustrated texts that issue from personal and corporate experience. The ultimate goal of the program is to allow the Numanggang freedom to reflect their rich heritage of oral communication in written form, thereby ensuring that the program is generated by them rather than being imposed by outsiders.
A Proposed Model of Reading for the Numanggang Adult Literacy Program

Before a program of literacy can be implemented for the Numanggang, a theoretical framework and pedagogical strategies must be developed. In an attempt to create a culture-specific plan for literacy, it would be beneficial to first examine the theoretical models of reading currently discussed in the literature and offer a slightly modified model based on language processes and linguistic theory. Two questions will be asked: 1) What is reading?; and 2) How should reading be taught?

What is Reading?

A definition of terms must precede the construction of a theoretical model, otherwise, the model will represent different things to different people. In asking the question, “What is reading?” it must be determined whether we are, in fact, asking a very different question – “How should reading be taught?” Weaver (1994) aptly states there is universal agreement that the goal of reading is to obtain meaning, but disagreement abounds in what is involved in learning to read. To define reading by one’s theory of reading instruction begs the question. Reading must be defined prior to the development of a classroom methodology.

If a teacher who believes in the phonics based instructional model is asked a different question, “Why do we read?,” the answer would likely be similar to the whole language teacher’s reply. We read to obtain meaning from the print. If the question, “How do we read?,” is asked, answers would differ greatly depending on theoretical orientation. The difficulty is that in developing models of reading, we are not
distinguishing between the what, why, and how of reading. Instead, we are simply calling them “models of reading.”

**Current Reading Models**

Although accepted as a schematic representation of various reading theory models, the Reading Theory Continuum (Figure 1 below), is inadequate for several reasons. Most importantly, it is not a continuum in the true sense of the word. While some factors on the scale gradually decrease or increase as one moves along the continuum, several elements do not change in a predictable manner. In addition, the continuum reflects more than “reading theory.” It could more aptly be titled, “Reading Instructional Models.” Finally, reading theories are perhaps defined by the continuum rather than the continuum being a clear reflection of well defined reading theories.

<table>
<thead>
<tr>
<th>PHONICS</th>
<th>SKILLS</th>
<th>WHOLE LANGUAGE</th>
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<tbody>
<tr>
<td>bottom-up</td>
<td>sight words</td>
<td>top-down</td>
</tr>
<tr>
<td>decoding</td>
<td>sight words</td>
<td>connections</td>
</tr>
<tr>
<td>judgment</td>
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<td>acceptance</td>
</tr>
<tr>
<td>minutia</td>
<td>standardization</td>
<td>authentic processes</td>
</tr>
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*Figure 1. Reading Theory Continuum. (Synthesized from class lectures, Edrg 620, CSUSB, Oct. 7, 14, and 18, 1997).*

Current research in language acquisition (including its application to literacy) and socio-psycholinguistics (Goodman, 1996; Orwig, 1995; Spiegel, 1996; Weaver, 1994), indicates that reading is an interactive process encompassing the entire continuum. If one claims to be a “whole language” proponent, including in a theoretical framework elements of phonemic, morphemic, and syntactic requirements, then the continuum becomes weighted much like a see-saw with a heavy child on one end. Furthermore, if
the models of reading proposed by Harste and Burke (Figure 2 below), truly reflect an orientation to the three categories on the reading continuum, universal agreement that the express purpose of reading is to convey meaning is ignored in the first two models.

Figure 2. Models of Reading. (Harste & Burke, 1979, p. 132).

Meaning is not a part of a model of reading. It is the very heart and goal of reading.

Only the whole language model places meaning in a more central position.
Language Processes

The answer to the question, “What is reading?” has been sought by psychologists, linguists, and educators. B.F. Skinner’s book *Verbal Behavior* (1957), greatly impacted theories of language learning and reading. Concentration of input shaped by reinforcement were the hallmarks of this behaviorist philosophy. Noam Chomsky (1959), a renowned linguist who developed transformational grammar, disagreed. He contended that every human mind contains an active language processor that allows the creative generation of sentences never before heard. Chomsky’s theories in turn impacted reading theories, notably that of Ken Goodman, who combined the disciplines of linguistics and reading education. His books are a long awaited look at the “nature of language and the science of reading” (Goodman, 1996, cover). Reading, Goodman says, is one element of the many facets of language processes. His theory placed reading in the semantic household of language (Figure 3 below).

<table>
<thead>
<tr>
<th>ORAL LANGUAGE</th>
<th>WRITTEN LANGUAGE</th>
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<tbody>
<tr>
<td><strong>PRODUCTIVE</strong></td>
<td>Speaking</td>
</tr>
<tr>
<td><strong>RECEPTIVE</strong></td>
<td>Listening</td>
</tr>
</tbody>
</table>

*Figure 3. Language Processes. (Goodman, 1996, p. 4).*

Though diversity in language exists in internal structure, i.e. phonology, morphology, grammar, and syntax, all languages when spoken act as vehicles for
communication of ideas or meaning for affective or cognitive purposes. Goodman (1996) states:

The process by which written language develops is the same as that for oral language development. Both develop out of the need of humans to think symbolically and to communicate in a growing range of contexts and functions, as individuals and as societies. (p. 119)

In a very real way, language, in all its diversity and complexity, is the human vehicle for communicating meaning, for expressing the sense we are creating of our world. Our daughter, Beth Anne, an avid fourteen-year-old reader, proclaimed, “I’m a good reader because I read more than just written words – like eyes, minds, faces and art. I read what it’s saying” (October, 1997). Reading, for her is simply another extension of her mind’s endless search for meaning. She sees animals in the clouds, laughter in the rain, and poems at dusk. Our son, Jeremy, learned to “read” various makes and dates of cars before he learned to read the car sale advertisements in the newspaper.

From the moment of birth, babies begin to visually process the world around them. Gradually, shapes become meaningful and are incorporated into their personal structure of meaning. People, objects, and places are identified and categorized. Infants learn that Mommy is not Daddy and that dogs are different from cats (Smith, 1997, p. 5, 6, 73). The study of semiotics supports the fact that human beings are constantly in the process of creating meaning from acoustical, visual, and tactical signs (Diaz-Rico & Weed, 1995, p.18-19). When children enter the classroom for the first time, they are expected to learn how to read. Because they already possess the necessary skills for distinguishing objects in the world, learning to read should simply require an extension of the use of those skills. Frank Smith (1997) supports this assumption:
Learning to read involves no learning ability that children haven’t already exercised in order to understand the language spoken at home or to make sense of the visual world around them. In fact, learning to read should be very much simpler, given the complexity of these earlier language and visual accomplishments. (p.5)

According to Goodman (1996), “children [in a literate society] come to school already rich in literary experiences, and having already learned to make sense of print” (p. 119). If a child can speak, then, barring any severe mental handicaps, he/she will be able to read because reading is a dimension of language. “There is...nothing about reading that is unique as far as intellectual processes are concerned. From the point of view of language, reading makes no demands that the brain doesn’t meet in the comprehension of speech” (Smith, 1997, p. 1). Written language is simply that – written language. It is another avenue in which the brain processes visual information and interprets meaning.

In the wake of the discovery that reading is a language process, a composite understanding of reading has emerged. Drawn from several disciplines, this description of reading is based in the mysteries of the human brain within the context of social interaction:

Reading...is not merely a psycholinguistic process, involving a transaction between the mind of the reader and the language of the text. Rather, reading is a socio-psycholinguistic process, because the reader-text transaction occurs within a social and situational context. (Weaver, 1994, p. 29)

Readers bring to the written page, metalinguistic, metacognitive and metacomprehensive strategies (Weaver, 1994, p. 23). Using these strategies, the human mind interacts with the print and seeks to find meaning. The process is incredibly complex, with a constant interplay of multiple strategies developed since birth. Research
in the functioning of the human brain reveals that it simultaneously uses “thoughts, emotions, imagination, and the senses to understand and interact with the environment” (Diaz-Rico & Weed, 1995, p. 19).

Foundational to the socio-psycholinguistic definition of reading is the core component of meaning. Without the search for meaning, there would be no language, oral or written. All oral language would be only a barrage of auditory insensibility, and written language would be nothing but a series of mysterious symbols. A deep structure to all forms of communication gives purpose and creates motivation for speech and for written language.

A New Model of Reading

Considering the current research, the following definition of reading is proposed as an answer to the question, “What is reading?” – the what, why, and how of language being given equal pause:

Reading is an extension of language processes which involves the interpretation of linguistic symbols for meaning transfer through the use of multiple strategies requiring complex cognitive, affective, and social awareness.

Using this definition to build a model of reading permits reading to take its rightful place among other language processes. The model is presented in Figure 4, p. 14.

How Should Reading be Taught?

With a definition and model of reading in hand, the second question, “How should reading be taught?,” can now be explored. Two considerations underlying the modified model are fundamental to its interpretation when applying it to the instruction of reading. First, the new reader is similar to the second language learner in that both
Figure 4. A Model of Reading as Part of Other Language Processes.

bring with them a knowledge of how language works, and metacognitive strategies for discerning meaning. Both are essentially learning a new semiotic framework in which to encode deep structure. The new reader, therefore, should not be treated as one learning to speak a language for the first time. He knows too much already. Because learning to read for meaning is successful only if the target language is meaningful to the learner, language acquisition must precede efficient reading. If that is the case, then learning to
read can be enhanced by instruction much the same way a second language learner benefits from formal lessons.

Second, the goal of all educators should be to assure the success of the greatest number of students. Because each person is uniquely created with differing learning styles, educators must recognize and respond to those styles in the formulation of instructional methods. The reading model offers the possibility of focusing on any level of the language – phoneme, morpheme, sentence, or semantic core. For the Numanggang people of Papua New Guinea (and for most language groups with recently developed orthographies based on phoneme/grapheme match), multiple strategies are not only functional, but highly productive.

**Multi-Strategy Method**

Mary Stringer, a member of the Papua New Guinea branch of SIL, did an extensive study in which a class of non-literate children from the Enga Province were divided into three different groups. Teachers in one group used the Syllable Method, in which reading instruction centered around phonics and systematic instruction, the goal being “correct” reading strategies and written answers. The other group, using the Process Method, was given much freedom. The teacher responsible for group two allowed errors, discovery, and creativity. The third group was taught using both the Syllable Method and the Process Method. Stringer (1987) analyzes the results:

The Enga pre-school study strongly indicates that those children training in both methods...attack reading and creative writing with confidence. They predict well and read with understanding, including tone, stress and intonation, and with obvious pleasure...Those who have been taught only the Syllable Method do not readily write creatively and they tend to read haltingly, sounding out each syllable before pronouncing the words, even when those words are known....Those
exposed to only the Process Method...lack the skills to tackle new material thus leading to a slow introduction to literacy. (Stringer, 1987, pp. 8-9)

Following her research project, Stringer promoted her Multi-Strategy Method (Stringer, 1993; Stringer & Faraclas, 1987) in which she integrated the whole language approach with a systematic phonics approach to literacy learning. Rempel (1993) introduced a modified version – the Multi-Strategy Economy Method – to meet the needs of the indigenous language groups of Papua New Guinea who are working under the constraints of (1) poverty and (2) of teachers who have only a minimal educational level. The Economy model has a whole language track with creative writing and a phonics track which is based on meaningful text. The phonics track includes word building exercises and writing practice for spelling. In this method, reading natural meaningful stories and building accuracy in word attack skills via phonics strategies are both emphasized. In pilot projects the results are very promising.

Other research supports the multi-strategy philosophy (Cunningham, 1996; Smith, 1997; Au, 1997). Cunningham (1996), a proponent of the Reading Recovery program, states: “Research into the word identification process supports the need for reading and writing as well as the need for explicit instruction on how to read and write and on discovering how our alphabetic language works” (p. 88). Smith (1997) believes every approach is credible. “Out of...tens of thousands of studies only one basic and incontrovertible conclusion can be drawn: All methods of teaching reading look as if they achieve some success, with some children, some of the time” (p. 3). No one strategy should be touted to the exclusion of other methods or strategies that have proven successful. A balanced literacy program eclectically gathers strategies from numerous
methodologies, combining them in a manner that supports the definition of reading as a
language process. Spiegel (1996) proposes that:

Systematic direct instruction and many aspects of whole language can be blended in ways that strengthen both approaches. Rather than looking for points of conflict, literacy educators will benefit children more if they look for points of compromise and opportunities to blend the best of both viewpoints. (p. 21)

In 1993, a task force composed of ten literacy consultants met in Papua New Guinea to discuss the elements they deemed necessary to assure a balanced literacy program. These specialists were a mix of Australians, Asians, and Americans and therefore represented a broad spectrum of theoretical persuasions and experience. All agreed that four elements needed to be included in literacy programs: top-down and bottom-up strategies, reading and writing. The core of their working model was “Meaning and Comprehension” (M & C) of the written text (see Figure 5 on page 18).

Combination of Direct Instruction and Whole Language Strategies for the Numanggang

For the Numanggang adults, a balanced program answers the need to incorporate both traditional and introduced methods of instruction. Culturally appropriate ways of instruction are demonstrations, either with or without verbal instructions. Learning takes place by careful observation and participation. All the skills necessary for survival are modeled by older members of the family, the children naturally acquiring those skills as they mature (see APPENDIX A1: Educational Considerations, page 155). In the early 1930’s, the Lutheran Church established a “church” school in Gain village. All eligible children attended. For the first time, the Numanggang children encountered
learning based on the perennialist and behaviorist models. Although inconsistent with traditional forms of learning by observation, the people seem to have accepted this system as proper and have compartmentalized their lives into school and daily life.

In developing the program of literacy for the Numanggang people, reverence for their traditional values figures heavily in the conceptual model. However, certain elements of direct instruction for semi-literates will enhance the speed and proficiency with which they become proficient readers in the vernacular, and indeed, are expected by the Numanggang as an important component of classroom learning. When whole language methods of modeling reading in a meaningful context were used in pilot literacy courses in Tumun, interest increased, but undivided attention was also given the teacher during sessions of direct instruction. Both methods proved successful.

Systematic instruction must continue as a component of Numanggang literacy programs, not only because it is functional, but because critical information, necessary
for deriving meaning from the text lies at the phoneme and morpheme level. The transfer primer which introduces the alphabet, however, moves rapidly into meaningful text – a luxury available when the orthography reflects a one sound/one symbol correspondence, and when the learners can already read in a second language.

Justification for the absolute necessity of including whole language methodologies for the Numanggang is presented in the Literature Review (p. 22). The linguistic reasons for including direct instruction in phonics are delineated in APPENDIX A1: Linguistic Considerations (p. 160).

A New Instructional Model

Using the new reading model (Figure 4, p. 14), a new instructional model can be devised. Founded within the setting of social context, instructional content can be systematically taught. Lessons would move much like the dial on a radio – each lesson tuning into a different aspect of meaningful communication (see Figure 6 on page 20). The combination of whole language and direct teaching has yielded exceptional results in pilot literacy projects. In May, 1996, 40 young people crowded into a small living room in Tumun for five consecutive days to learn to read in Numanggang. Two hours in the evening was designated for the class, but no one wanted to leave. Finally, after four hours, the students were sent home in order to give the leaders a rest. On the final evening, students were invited to share their original short stories with the class. The excitement and joy over becoming literate in their own language, something they previously had deemed impossible, permeated the room. One story in particular caused
From surface structure to deep structure

**READING**

- graphemes
- morphemes/words
- sentences

**SEMANTICS**

within a social context

From deep structure to surface structure

**WRITING**

- graphemes
- morphemes/words
- sentences

**SEMANTICS**

within a social context

**Figure 6.** The Language Process Model of Reading Instruction.

hysterical laughter all around – not because the author made mistakes, but because the content of the story was so funny.

The following Sunday, selected class graduates read the Scripture portions in church. Unlike the leader stumbling over a foreign text, the readers supported the verses with amazing fluency and the written page itself conveyed the meaning in a new and profound manner because the language itself was their mother tongue.

**Summary**

In attempting to learn to read in the vernacular, the Numanggang adults face a myriad of obstacles. Their language was unwritten until the late 1980’s. A small percentage of the adults can read with proficiency in either Kate or Melanesian Pidgin. However, the history of literary tradition in a number of foreign languages skews the perception of
reading, and the traditional view that secrets of knowledge are hidden in words known only to the "big men" confuses the purpose of written communication. Though rich in oral tradition, the Numanggang do not appear to consider written language as an extension of spoken language. In order to combat the pervasive mystique of written words, literacy must be seen as an extension of daily oral language available to all members of the society.

With the development of the Numanggang orthography and the production of some translated material and indigenously authored and illustrated texts, the potential for a vernacular literacy program is now possible. Literature produced in writers' workshops and taught by Numanggang adults will form the core of the program. The simple orthography utilizes only one grapheme for each phoneme and, therefore, lends itself to the proposed instructional model which incorporates elements of both the phonics and whole language approaches. A transfer primer, which introduces the alphabet and provides instruction in difficult linguistic features of Numanggang, will supplement collections of locally produced literature. Ownership of the reading and writing process in their mother tongue could potentially arrest the exclusive, esoteric perception of literacy and place reading and writing within the reach of every Numanggang adult.
CHAPTER TWO: LITERATURE REVIEW

It was just an old skeleton key. David Hynum, a linguist analyzing the Numanggang language, happened upon it one day, rusting in the wet grass. Thinking it might fit the ancient locks used on some of the village homes, he offered it to a bystander from another village who took it hesitantly. Several weeks passed. Finally, the new owner of the key surreptitiously approached Hynum with the news that he could not figure out how to use it. In the course of the conversation, the villager mentioned that "others were saying the bomboongi ('rich man') had given him the key to the cargo" (Hynum, personal conversation, 1985). On another occasion, it was said that Hynum visited the grave site after dark to converse with the ancestors who imparted to him their knowledge and wealth. After all, he did no hard physical labor, but spent his day copying down words and reading print.

The younger generation, who have experienced greater exposure to the world of education, seem more at ease with the visiting linguists, eagerly offering help and friendship. Most of the older members of the village of Tumun also have warmed to the presence of foreigners. Those in distant villages, however, remain aloof and seem to eye the white family with either awe or suspicion. Whether or not it can be conclusively determined that the Numanggang see a connection between the linguist's preoccupation with written language and his apparent higher economic status remains a matter of speculation. Even if attitude surveys were conducted, results would be uncertain for two reasons:
1) Direct questions concerning emotive or spiritual perceptions are not cultural and are met with evasive answers.

2) Even if a person being interviewed believed reading and writing was a secret avenue to power, it is doubtful that it would be admitted due to consensual adherence to the Lutheran faith.

The evidence in the literature, however, suggests that for the region, which is steeped in a history of numerous cargo cult movements, literacy, at least in the recent past, has been espoused as a way to receive cargo from the spirit world. In order for the Numanggang to overcome esoteric and exclusivistic attitudes toward literacy which issue from their epistemology, the influence of the cults, and the use of foreign literature, written language must be seen as an extension of oral language. Only then can literacy enter the realm of daily communication.

The literature review, therefore, will explore the reasons for the necessity of using indigenously authored and illustrated materials in the Numanggang literacy program for adults. The first section explores the reasons for the necessity of using indigenously authored literature as the foundation for the adult literacy program in order to 1) remove the mystique of written language, and 2) create a connection between oral and written language. The second section discusses 1) picture perception research in pre-literate societies, and 2) the need for using indigenously illustrated literature in the Numanggang adult literacy program. The third section, devoted to the generation of a culturally sensitive model for the literacy program, concludes the literature review.
The Need for Indigenously Authored Literature

Written Language – Mystical or Meaningful?

Literacy programs are never created in a vacuum. They involve real people in authentic cultures. Whether approaching the phenomenon of print as a member of a literate society or a preliterate one, the new reader comes with unique prior knowledge which was formed within a particular system of beliefs and values. For the Numanggang, a mystical view of words was formed within the traditional cosmology and epistemology. When writing in foreign words was introduced as the foundation for literacy programs, the people’s perception of print was filtered through their world view. A look at the traditional beliefs of the Numanggang and the historical events which contributed to a possible mystical perception of reading and writing will clarify the need for vernacular literacy programs based on indigenously authored literature.

Traditional Beliefs

Secret words. Certain Numanggang words are imbued with power – power to bring prosperity or destruction. A traditional Numanggang refrains from pronouncing his own name for fear it will give the hearer power over him/her. In-laws names are not spoken. When planting a garden, the men glance around to see if women or children are present, then, while forcefully creating holes in the ground with a sharpened pole, they repeatedly chant a secret word – mesia – to insure a good harvest (Hynum, personal conversation, 1991). According to Lawrence (1964), the men of the region tied a piece of tree (tembemeng in the Numanggang area) to a string before a hunt to create a bullroarer.
Then “the leader breathed a spell over the bullroarer and whirled it in the bush, out of sight of women and children, so that the deity would provide plenty of game” (p. 17).

In the Gapun village in a rural area of the Sepik region of Papua New Guinea, Don Kulick and Christopher Stroud (1993) document this perception of words:

Certain words uttered in certain contexts are seen by the villagers to have the power to bring about certain outcomes. Words constitute direct links to spiritual powers, who will respond in desired ways if the proper words are said in the proper manner. The power of words is thus a creative power; those who have obtained verbatim knowledge of a chant, for example, can utilize the power of those words for their own purposes. Words are, in themselves, “roads”: ways of obtaining desired results. (p. 40)

**Traditional cosmology.** The preoccupation with the proper use of words in incantations and rituals is a natural result of the traditional cosmology of the Melanesian culture, an area of the South Pacific which includes the coastal areas of Papua New Guinea (Meggitt, 1981). In the Melanesian view, the universe consisted of the tangible physical world together with the people living in it, spirits of people who had died, and deities with creative power. The creative deities were thought to have endowed man with culture through visions and dreams in which secret information necessary for social and technical success were imparted to selected men or groups. Spirits of the ancestors, on the other hand, were seen as protectors of their living kin, provided they were properly appeased (Meggitt, 1981). According to Cochrane, the attitude of the dead was ambivalent and rested on the use of the right formula. “They were angered by breaches of traditional customs and failure to execute funerary rites in a proper manner.” These spirits “were thought to be very powerful, capable of doing great harm or of giving help and assistance” (p. 15).
To underestimate the importance of the spiritual world is to misunderstand the traditional Melanesian cosmology. As Chipp, (1971) states:

It has been often demonstrated that among primitive men the threshold between the dream world and the real world is slight or even non-existent...The dream is often considered even more real than actuality, since the dream world is the abode of the ancestor and other spirits that control events in the real world. (p. 163).

The spirit world, however, existed for the benefit of the living – if the living could determine how to force the spirits to respond positively to their efforts at communication. Describing the belief system of the Ngaing people of the Rai Coast in Madang, Lawrence (1964) comments, “Anthropocentrism and materialism were undisguised in religion. The world existed for man and he was the master of it” (p. 29). Dreams and trances were perceived as “creative actions” through which economic advantage was gained (Lindstrom 1993, p. 58). The purpose of religion for the Naing was to find the proper ritual to use in relating to the ancestors and creative beings in order to prosper on the earth. The connection with prosperity was logical:

During the period of creation, each deity appeared to men in a dream or lived with them and instructed them how to produce his or her special part of the culture. This included both secular and ritual techniques. Ritual techniques...involved the symbolic repetition of actions performed by the deity at the time of creation and the knowledge of an esoteric formula or spell, the secret name (wawing buingna) of the deity or artifact invented....It was assumed that, as long as ritual was correctly performed, the relevant deity had no option but to grant immediate success in any serious undertaking” (Lawrence, 1964, p. 17).

The traditional Melanesian value of exchange – you do something for me, and I must do something for you – figured in this reciprocal relationship with the spirit world. If the right rituals and incantations were performed, then the spirits were obligated to
respond. The cultural necessity of pay back – you act destructively toward me or my clan and I must act destructively toward you – also created the expectation that performing rituals and incantations improperly, or in public would cause tragic consequences.

Exclusivistic epistemology. Proper communication with both deities and ancestors that procured the desired results required the acquisition of certain esoteric knowledge and was accomplished through inherently ambiguous techniques, i.e., dreams, spirit mediums, visions, and incantations (Cochrane, 1970; Lawrence, 1964; Lindstrom, 1993; Nash, 1983). “That is, communications with the supernatural or non-empirical in Melanesia were essentially oracular, ritualized, and as susceptible of misinterpretation as ever they were at Delphi or at Cumae” (Meggitt, 1981, p. 301). Not only were these techniques ambiguous, but they were accessible to only the spiritually endowed – those who were able to acquire knowledge through divine revelation, not human intelligence and reasoning:

The human intellect on its own...counted for nothing, the only valid sources of important knowledge were assumed to be myths and revelations by deities during dreams or other singular experiences. Such knowledge...consisted in the possession of correct ritual secrets. (Lawrence, 1964, p. 244)

Throughout Melanesia, according to Lawrence (1964), the mark of leadership was the possession of “true knowledge.” Although this knowledge “included secular-empirical techniques, [it]...was considered primarily the ability to maintain relationships” with ancestors and deities through “the repetition of esoteric formulae and symbolic actions” (p. 226).
Only “big men” – important leaders – were privy to the mystical power that gave them access to secret knowledge, allowing them to communicate with and manipulate spirit beings (Cochrane, 1970; Lawrence, 1964; Worsley, 1970). Among the Elema of southern Papua New Guinea, select elderly leaders, or avai, were “endowed with mental powers, and were the only ones who could undertake communal religious technology” (Cochrane, 1970, p. 8). Their definitive possession of ahea, or heat, gave them the necessary “exclusive knowledge” and “ability to control the dead” (p. 15-16) and, thus, obtain their assistance for the community. Initiation rites, magic, and other rituals were performed by these important men. They were, as well, the dominant political leaders (Cochrane, 1970). Quoting Firth (1967), Cochrane (1970) states:

The ‘big men’s’ power to overcome difficulties came from their possession of mana. Basically mana refers to a kind of power beyond the ordinary – not just physical strength but power of a less tangible kind though it must be demonstrated by physical results. (p.71).

Unusual and “great achievements could be empirically ascribed to possession of mana” (Cochrane, 1970, p. 71). If powerful enough, Numanggang me wapuhi (“big men”) could turn themselves into animals when convenient. It is told that one man became a snake and rode home in his wife’s string bag to avoid getting wet in the rain. Another became a cassowary simply to prove his power (D. Hynum, personal conversation, 1991). The women, however, were excluded from the presence of the men during the practice of magic rituals. Even among the men, only a few knew the mysteries of sanguma (“magic”) sufficiently to procure the tangible results of success in war, hunting, and planting.
Major Events Contributing to Cargo Mentality

When Europeans entered the Melanesian world in the 1800’s, their presence, lifestyle, and belief systems were interpreted by the natives according to their traditional cosmology and epistemology. As more and varied foreigners arrived, the belief systems of the area absorbed the ever changing environment created by the newcomers, attempting to adapt the substance, but not the structure of those foreign systems. Thus, as the history of “cargo cults” evolved in Melanesia, the underlying traditions of anthropocentrism, emphasis on technological or economic results, the societal and religious fabric of exchange, and the prominence of “big men” with their exclusive possession of “true knowledge” remained constant (Nash, 1983; Lawrence, 1964).

In this section, a brief introduction to some of the events contributing to cargo cult thinking and shifts in pervasive beliefs in the Madang and Morobe Region will be presented, including the arrival of foreigners, cargo movements, The New Apostolic Church, and Habitat for Humanity. It will be apparent in the ensuing discussion that although the theme of new divine revelation of knowledge was woven throughout the various events and cult movements, the ever changing belief systems were consistently grounded on traditional values and religion.

Nikolai Miklouho-Maclay. The first white person to demand entry into the Melanesian cosmic order in the Madang/Morobe region was Nikolai Miklouho-Maclay, a Russian Baron who visited the Rai Coast on three occasions in the 1870’s and 1880’s for prolonged periods of time. Apparently bold and self-confident, he was determined to be accepted by the natives, and accomplished his goal. The people concluded that he “was a
local deity who had invented a new type of material culture and had now appeared to give it to the people” (Lawrence, 1964, p. 59). According to Lawrence (1964):

Once Maclay had overcome the initial awe and wonder caused by his arrival, and had established his bona fides, the people treated him with respect and goodwill. They were able to assimilate him to their own pattern of relationships by exchanging goods and services with him on what they regarded as an equitable basis. Hence they came to think of him as an intrinsic part of their own world. (p. 233)

Arrival of the Germans. Maclay warned the people that more Europeans would follow – some good and some bad. Romilly and Finsch, Germans with the New Guinea Company, arrived in 1881 and, because they knew Maclay and treated the local people kindly, the natives accepted their presence. The German occupation, beginning on Nov 27, 1884 with the raising of a flag at Finschhafen on the Huon Penninsula, however, initiated a period of intense effort on the part of the local people to maintain order to their challenged cosmology (Lawrence, 1964).

In 1886, German Lutherans with The Neuendettelsau Mission arrived in Finschhafen. Under the leadership of Rev. C. Keyser, the mission developed a strategy to evangelize entire villages rather than individuals. These villages then provided Christian leaders to work in other villages as evangelists and teachers. “This system of group approach soon proved its worth: it enabled the natives to adopt Christianity on their own terms and increased the missions effective field staff” (Lawrence, 1974, p. 52).

How much of the Lutherans’ intended theological interpretation of the Bible remained in tact as it was introduced from village to village by new converts is open to speculation. Numerous syncretistic systems emerged. That this should occur is expected according to Nash (1983) who defines syncretism as “an adaptive strategy designed to
overcome cognitive dissonance caused by conflicting information, world-views, and desires" in which “new information and data are worked into an already existing infrastructure” (Nash, 1983, p. 18). According to Lawrence (1964), Christianity was recast in the traditional venue of materialism and anthropocentrism:

All the main teachings of the new religion – The Creation, The Fall of Man, The Great Flood, and even The Resurrection and Second Coming – were stripped of their spirituality and given a thoroughly pragmatic meaning. They became a new origin myth of the cargo, while Christian faith, worship, and morality were understood as the effective means of obtaining it: the rot bilong kako (Pidgin English), the road along which the cargo would come...The natives’ expectation that cargo would arrive from God involved the reconstruction and enlargement of their cosmos so as to embrace the new ideas introduced by Christianity and what they had learnt from general contact with Europeans. (Lawrence, 1964, p. 75, 77).

The Lutherans used Anut, the local term of the Rai Coast for the original creative deity, as the name for God. The choice did not fully express the Judeo-Christian interpretation of a creator of heaven and earth. According to local mythology, Anut did not create the universe but “emerged from a cave and ‘put’ the other natural phenomena” (Lawrence, 1964, p. 21) in place. The Christian Anut, therefore, fit into their traditional cosmology as another spirit being to be manipulated.

This revised cargo belief based on Christian doctrines “spread throughout much of the southern Madang District by the early 1930’s. It was current all along the coast between Bongu and Sek by 1920, and thereafter traveled inland as the country was opened up by Administration patrols and mission parties” (Lawrence, 1964, p. 81). The rapid propagation of the quasi-Christian cargo doctrines was also aided by some Lutheran and Catholic mission helpers who had minimal education under mission tutelage due to rapid expansion and the need for workers. Lawrence (1944) states that:
such men, working far away from the supervision of European missionaries and, because they were not employed within their natal congregations, in villages where they lacked the restraints imposed by kinship obligations, rapidly got out of hand....Convinced that the cargo would come only when everybody had embraced Christianity, they spared no efforts to hasten the event. (pp. 82-83)

Because the local people did not understand the material and economic realities of European society, their observations led them to believe that the white people did no work. Their possession of such prolific material wealth, must therefore, be the result of “secret magical power” (Worseley, 1970, p. 54). Determined to obtain this cargo, they religiously followed the missions injunctions. But the cargo did not come, and in the early 1930’s dissatisfaction erupted within the region. Some blamed the Europeans and absolved the missionaries. Others laid the onus at the feet of the European Christians, claiming “they were holding back information: some vital part of Christianity wherein the cargo secret lay” (Lawrence, p. 16). A letter sent to the Rev. R. Hanselmann of the Bongu Lutheran Congregation in 1933 expresses this frustration:

Why do we not learn the secret of the cargo? You people hide the power of the Europeans from us...True, the Mission has taught us Christianity but...the white men are hiding the cargo secret...from us. We are destined to be complete paupers, absolutely destitute. (Lawrence, 1964, p. 89)

During the mid-1930’s, the situation worsened and other accusations were made against the Lutheran church. Due to a general malaise among the native population concerning church affairs and failure to send their children to the mission schools, two church conferences were held in the Madang district. The mission was accused of hiding the secret to the cargo and the breach, though at first mended, festered. “A large proportion of both the Lutheran and Catholic congregations had become thoroughly
convinced of the missionaries' duplicity. No amount of argument, even from sincere native Christians, could restore confidence” (Lawrence, 1964, p. 90).

Some believed parts of the Bible had been purposefully omitted when translated into native vernaculars. The partial translations of the Bible in circulation, together with new portions being released periodically, added to the perception that the secret had not yet been disclosed (Worsley, 1970). Others felt that the missionaries had withheld the secret name of God which, if repeated, would force him to give them cargo. Anut – the audible form of address was obviously powerless (Lawrence, 1964).

Cargo movements in the Morobe district. Several cargo movements were birthed in the Morobe District during this period of questioning. A man, living in the Markham Valley in the early 1930's, had visions of Jesus Christ and his dead father. He claimed the ancestors would initiate the end of the world with earthquakes and floods and all who wished to be safe should take refuge immediately in the nearby mountains (Worseley, 1970). In 1933, Upikno of the Huon Peninsula took the name of Lazarus and taught people songs he learned from “voices.” He proclaimed the missionaries were no longer needed and would be replaced by natives. Similarly, a young 10-year-old boy began hearing voices and announced the return of the ancestors with houses, food, and riches for those who prayed diligently. Then in 1935, Marafi, another Markham inhabitant, reported a visitation from Satan who “had taken him into the bowels of the earth, where he had seen the spirits of the dead who dwelt there” (Worsley, 1970, p. 111). He proclaimed that when everyone believed in Satan as the Supreme Being, the dead would return to earth in a cataclysmic event of earthquake, darkness and the raining of burning
kerosene from heaven. Following the catastrophe, those who had taken refuge in large communal dwellings would be provided with canned meat, lamps, rifles, loin-cloths and tobacco by the spirits of the dead (Worsley, 1970).

Despite suppression and exposure by government officials, the entire “Morobe District was affected by similar cults” (Worsley, 1970, p. 113) by this time. “Virtually the whole native population was familiar with at least one of the propounded cargo beliefs and the idea that Europeans were hiding the cargo secret” (Lawrence, 1964, p. 104).

**World War II.** In an attempt to stem the tide of the cargo movements, the Civil Administration opened an English school at Mis in 1941. The natives “believed that at last they would be able to read the Europeans’ Bible *in toto* and discover the cargo secret for themselves” (Lawrence, 1964, p. 102), but the school was forced to close early in 1942 when the Japanese invaded. The sudden appearance of massive war equipment in the form of ships, planes, soldiers, rifles, etc. confirmed to the local people that the Europeans did, indeed, know the secret formulae and rituals necessary to obtain cargo from the spirit world (Lawrence, 1964).

**Cargo movements after the war.** Increased interaction with the occupying forces during the war and with the personnel of the Civil Administration after the war created more opportunity for shifting syncretism. Yali, an ambitious man who had served in the Police Force and in the Australian Army, became the recognized leader of a major cargo movement in the area. Yali understood from observation both on his own island and in Australia that the Europeans were able to make their own goods. Nevertheless, their knowledge, he believed, had been given to them by their god. In addition, he claimed that
this god supplemented men's efforts by providing added cargo during times of duress, if properly invoked (Lawrence, 1964).

Another movement headed by Kaum of Kalinam appeared in 1946. Kaum claimed to have died in prison after being severely treated by native police. While in heaven, he said he had seen the spirits of the dead and God making cargo. During his visit to the spirit world, he learned new rituals and thereafter prophesied that aircraft and ships would be arriving with cargo (Lawrence, 1964).

During this time, Yali continued to revise his beliefs. Having seen religious paraphernalia from New Guinea in a museum in Brisbane, Australia, Yali conferred with a local prophet and concluded that the missionaries had stolen their local deities. In June and July of 1948, he traveled through the Finisterre mountains advocating a return to "pagan religious ceremonies so that the old gods and goddesses could be lured back to New Guinea to usher in a new period of prosperity" (Lawrence, 1964, p. 192). Some villages were receptive; others, having received considerable mission education remained "steadfastly devoted to the Lutheran Mission" (Lawrence, 1964, p. 198).

Later continuation of syncretism. Little is written concerning cargo movements after 1950 in the Madang and Morobe regions. The general consensus in the literature seems to be the constantly shifting adaptations of an essentially simplistic religious technology:

Religious symbols, metaphor, and rituals are often retained, but their focus or direction has changed. The cult of the ancestors seems to have survived colonialism and contact, but subtle changes have been introduced which reflect new information and data...Rituals are still performed to achieve economic and political success, but the context of the economic goal has changed. One works rituals hoping to make enough money to buy a Toyota truck, and one also takes a
further Western precaution by procuring employment so as to earn cash. (Nash, 1983, p. 17)

A tendency to try any potential avenue to spiritual success permeates the thinking. Cochrane (1970) relates an incident in North Malaita of the Solomon Islands that illustrates this eclectic attitude of experimenting in order to light upon the right formula:

One day, as I was passing the fringing reefs of the Lau lagoon in north Malaita, the engine of our small boat broke down. Attempts to restart the engine were unsuccessful and the boat gradually drifted towards the reefs.

I noticed the Solomon Island skipper making use of his rosary beads as we drifted closer, in between his frenzied attempts to restart the engine. Even nearer to the reef he saw one of his old pagan shrines on the headland, he then called on the spirits of his ancestors for assistance. It was all to no avail. We struck the reef and had to swim ashore. (Cochrane, 1970, p. xxvi & xxvii)

Nash (1983) suggests that the Melanesians involved in cargo cult mentality are living in two worlds – the past and the present:

Continuity with the past must remain because it is impossible to totally scrap one’s cognitive structures and appropriate new cognitive structures. Even the tendency to introduce innovation is understandable from a traditional viewpoint: religion is supposed to produce results; if it does not, something is wrong with that religion. (Nash, 1983, p. 17)

Even present day Christianity, now integrated with community life and values remains subject to judgment. Tippet (1992) met a disillusioned young Christian man in Papua New Guinea who complained:

A few years ago I became a Christian because I wanted to achieve the white man’s status and wealth. I wanted a good job, with a good wage and a house like the white men have. I worked hard in mission educational institutions, and I was baptized. But now it is all empty and worth nothing. (p. D-113)

Similarly, a national pastor confided in the resident missionary after they had worked together for many years, “Now we have shared everything, won’t you tell me the secrets Jesus gave you” (Tippet, 1992, pp. D113-D114)? The continual search for spiritually
based economic success reflects Lawrence's (1964) observation, "The people ... had no sense of obligation to gods who were economically worthless or inferior, and would exchange them for others who offered better prospects" (p. 245).

**The New Apostolic Church movement.** For nearly fifty years, the Lutheran mission held sole jurisdiction over the Numanggang. The native congregational elders and teachers dominated the community spiritually, educationally, and politically. However, undercurrents of traditional attempts to find the road to the cargo persisted. Some villages were more prone to revisitations with past beliefs than others.

In the early 1980's, Mangai, a married woman from the village of Boing, received a spiritual endowment of power. Living at the squatters' settlement in the city of Lae, she attended a meeting of the New Apostolic Church (NAC), and thereafter began to pray effectively for healing among those in the settlement. During this time her husband became very ill, and begged his wife to pray for him lest he die, but she refused until he agreed to repent of his evil ways. He consented; she prayed and he was miraculously healed.

The events created eager enthusiasm, and the Canadian leaders of the NAC were invited to visit the Numanggang area. Renting a helicopter, they flew to a number of the villages in the mountainous community, convincing the people that adherence to their faith would ensure entrance into heaven. Their motivation, however, was dubious as they had entered the country illegally and falsely claimed the endorsement of David Hynum, the SIL translator working in conjunction with the Lutheran Church in the village of Tumun. The team continued their activities for several months before they were
discovered and deported by the government. The legacy left behind is a syncretistic group which has melded Christianity and the New Apostolic Church together with traditional cargo cult and ancestral sorcery practices in an exclusivist sect.

The New Apostolic Church, originating in England and currently based in Zurich, Switzerland, claims that “it is necessary to be endowed with the Holy Spirit by an Apostle in order to have fellowship with God, the Father and His Son” (The New Apostolic Church, 1997, p. 5). In the late eighteenth and early nineteenth centuries, earnest seekers in England, Scotland, and Germany became dissatisfied with the state of Christianity (Burklin, 1978; The New Apostolic Church, n.d.). Believing in the need to emulate the early church, “twelve men were declared to be apostles and were solemnly ordained to that ministry on July 14, 1835, in London” (Burklin, 1978, p. 68). Later, as the need for more apostles arose, more were appointed, and today more than forty men are ordained apostles. These apostles possess ultimate spiritual authority. “The apostles are mediators between God and man. Without them no salvation, no true life in God would be possible. They have power to remit sins and to cleanse from iniquity” (Burklin, 1978, p. 75). The sacrament of Holy Sealing, in which a person receives the Holy Spirit, must be administered by an apostle, who utters prescribed words while laying his hands on the believer’s head. The other sacraments of Holy Baptism and Holy Communion, also accompanied by ritual words and ceremony, may be administered by one who is commissioned (Invitation to the First Resurrection and the Kingdom of Peace, 1983).

When the New Apostolic Church was introduced to the Numanggang, the relegation of power and knowledge to a few men fit comfortably into their traditional
system of authority and epistemology. Furthermore, the emphasis on divine revelation in addition to the Scriptures (Invitation to the First Resurrection and the Kingdom of Peace, 1983) sanctioned the search for another possible avenue for the road to prosperity. Soon cargo cult practices such as storing exhumed bones of ancestors in designated rooms in homes, and ritualized immorality and early marriages for purposes of fecundity mingled with NAC teachings. Cultural unity within the larger group disintegrated and the confusion initially precipitated a near return to tribal warfare and hatred.

Habitat For Humanity. Habitat For Humanity arrived in the Numanggang village of Tumun in 1981. Millard Fuller, the founding father of Habitat, announced the possibility of permanent housing for everyone if they would work together. Numerous years of dedication and cooperation ensued. Many houses were built and several projects were birthed in neighboring communities. But, in the mid 90’s enthusiasm waned. The monthly payments created a burden. New house construction, dependent on the revenue collected from those who had received a new home, slowed. The reasons for the dwindling participation can only be surmised. It was evident at the onset of the project that involvement in the translation of the Bible into Numanggang was abandoned by many in preference for involvement with Habitat. Was the housing project seen as the coming of material wealth? Did the reality of hard work and monetary obligations dim their hope of free gifts from the ancestors? Was the waning interest in the project an indication of the ever shifting search for the road to the cargo?
Reading and Writing: A Road to the Cargo?

**Introduction to literacy by foreigners.** Given the traditional Numanggang world view and the historical events exacerbating the penchant toward a search for prosperity through spiritual encounters, reading and writing were, understandably, not interpreted within a pragmatic Western grid. Literacy was construed, at least by some, as a means to an end – material blessing. Historical anecdotal records indicate that reading and writing were considered to be magical rituals performed by the powerful foreigners.

Essential to the proper interpretation of the following glimpses into history is the recognition that cross-cultural miscues do not denote inferiority on the part of either party, but rather a misunderstanding or misinterpretation of the information or observation in focus. Street (1987) squarely criticizes the accounts of the uses of literacy in the cults as emphasizing “the supposed cognitive deficiencies of the native mind and thereby [serving] to understate their ideological and political significance” (Street, 1987, p. 18). Early exposure to literacy was filtered through the structure and purposes of the foreigners and, as any introduced custom, was subject to unique local interpretation.

A particularly salient incident which demonstrates the curious manner in which early missionaries explained reading and writing occurred in the Cook Islands. Street (1987) relates an account written by J. Williams working among the Raratonga in 1837 (spelling and punctuation remain as in the original):

In the erection of this chapel, a circumstance occurred which will give a striking idea of the feelings of an untaught people, when observing for the first time, the effects of written communication. As I had come to the work one morning without my square, I took up a chip, and with a piece of charcoal wrote upon it a request that Mrs. Williams should send me that article. I called a chief who was superintending his portion of the work, and said to him “Friend take this; go to
our house and give it to Mrs. Williams.”…Perceiving me to be in earnest, he took it and asked “What must I say?” I replied “You have nothing to say; the chip will say all I wish’. With a look of astonishment and contempt, he held up the piece of wood and said ‘How can this speak/ has this a mouth?’”. On arriving at the house, he gave the chip to Mrs. Williams, who read it, threw it away, and went to the tool chest; whither the chief, resolving to see the result of this mysterious proceeding, followed her closely. On receiving the square from her, he said, ‘Stay daughter, how do you know that this is what Mr. Williams wants?’ ‘Why’ she replied, ‘did you not bring me a chip just now?’ ‘Yes’, said the astonished warrior, ‘but I did not hear it say anything’. ‘If you did not, I did’, was the reply, ‘for it made known to me what he wanted, and all you have to do is return with it as quickly as possible’. With this the chief leaped out of the house, and catching up the mysterious piece of wood, he ran throughout the settlement with the chip in one hand and the square in the other, holding them up as high as his arms would reach, and shouting as he went, ‘See the Wisdom of these English people; they can make chips talk! they can make chips talk!’ (p. 14)

As more Europeans arrived, setting up mission stations and businesses, the local people reached the conclusion that the white people seemed to accumulate wealth without hard physical labor. Rather, “they directed the work of native employees, sat in offices and wrote on bits of paper and, when they wanted fresh supplies of goods, sent their servants with chits to the store” (Lawrence, 1964, p. 228). Unwittingly, the newcomers assumed the status of traditional “big men” who knew the proper formulae and rituals (Cochrane, 1970).

The experience of the local people when invited to the schools provided by the foreigners, however, was qualitatively different than the anticipated expectation of learning the wisdom of the Europeans. Schooling was circumscribed by the particular goals of the missions to produce converts, teach the doctrines of Christianity, and maintain their position (Street, 1987; Worsley, 1970). Street (1987) describes mission education among the Fijians:
In the mission schools texts were limited, reading was emphasized rather than writing, writing materials were scarcely available, while teaching techniques involved chanting, repetition and copying with little attempt 'to convey meaning to the mind of the student'. All of this experience provided the Fijians with a model of literacy in which manipulation and ritual were paramount. (p. 26)

Relating information from the *Sydney Morning Herald* on March 19, 1960, Lawrence (1964) tells of a youth in the Wewak Administration School who wrote to an Australian pen pal requesting ‘“magic for think’...so that he could get into a higher class” (Lawrence, 1964, p. 271).

The natives “found themselves being provided with only a modified version of literacy practice, that served to maintain their subordination rather than opening new doors to the wealth they saw displayed by Europeans” (Street, 1987, p 15). They were well aware that the missions education was limited in scope. Subjects such as science, geography, business and economics, and history were seldom taught. As noted previously, they recognized that only partial translations of the Bible were made available to them. This lack contributed to the thinking that “the ‘secret’ part of Christian knowledge [was being] hidden by the Whites” (Worsley, 1970, p. 249).

Forge (1971) relates a personal incident which highlights this perception of the white man’s deception concerning literacy:

A group of Iatmul in Kararau,...had found a picture of Thoth the ibis-headed Egyptian god of wisdom – used as a trade mark by an Australian book distributing firm – on the back of a mission school book. This, and the accompanying advertisement, they had copied out and showed to me as conclusive proof that the whites had also sprung from totemic ancestors. My translation of the text, which was irrelevant to the origin of man and the nature of the cosmos, convinced them that I, like the other whites, was determined to deceive them. (p. 291)
In recent years, the attempt to replicate the social institution of education in another culture without adapting the structure and purposes to conform to the new environment has come into question by the Christian community:

We have transplanted such institutions with all good intentions on the assumption that they are working well at home (an assumption that itself needs examining) and that, therefore, they will work well here. But they don’t seem to live up to our expectations, and we often don’t know why. Indeed, they prove disruptive to indigenous values and cultural traits that we would otherwise wish to maintain....An educational model having validity in one society may not easily be transferred to another. (Kraft, 1996, p. 287)

Lawrence (1964) claims that “there was virtually no success in giving [the Melanesians]...Western secular education.” He cites the failure of the Imperial German Administration to “disseminate a rational understanding of the new colonial order” and the Australian Mandate Administration in their attempt to establish schools. Because the students were not taught English proficiency to the point of mastery, “they were not equipped to get a true insight into Western culture” (p. 230).

The missions and governmental agencies can hardly be criticized for the dearth of vernacular materials and for their limited dispensation of mother tongue literacy in a country with so many languages and few trained workers. However, the rigid adherence by the foreigners to the Western educational structural system and the attempt to import their pragmatic view of reading and writing naturally created discord with traditional customs and beliefs. Having been subject to the process of using literacy in ritualized manners in restricted situations by the foreign teachers, the local people “tried to manipulate [literacy]...in the same way as the Europeans in order to establish their own
authority and political position” (Street, 1987, p. 26). Meggitt, as quoted by Street (1987) states:

Many Melanesians displayed a curiously ritualized (yet practically understandable) attitude towards literacy. They took writing to be merely one more of those inherently ambiguous modes of communication with the supernatural with which they were already familiar. From this point of view, the virtue of writing lay in men’s ability to manipulate it as an entity in a defined ritual fashion so that they could get a grip on the mission god and force from him his secrets. Indeed, writing soon came to be, in itself, an important symbol of the very goals of wealth and authority to which people aspired. Many regarded words as simply aspects of the Word, a mark of impending millennium and a ‘Road to Cargo.’ (pp. 20-21)

Such attitudes toward literacy manifested in cultic uses of reading and writing. One group called the “Luve-ni-wai” or “Children of the Water” placed great importance “on books, records, codes of signals and other written paraphernalia” (Street, 1987, p. 19). A cult group among the Yamikum attempted to mimic the business affairs of the white people by constructing “a ‘faktori’, an ‘ofis’, and a series of buildings meant to represent a business complex” (Nash, 1983, p. 9). Another group, “the Tuka cult emphasized writing, both in the sayings of its prophet, Ndugomi, and in its organizational framework, with ‘scribes’ among the hierarchy of officials and Bible references prominent” (Street, 1987, p. 20).

Sending children to school became a means of finding the road to wealth and prosperity – a concept not entirely alien to Western ideology. However, schooling, at least among some was interpreted “in terms of their millenarian world view...the ultimate purpose of schooling [being]...to reveal to their children the secret of the Cargo” (Kulick & Stroud, p. 41). When a Karkar Lutheran congregational elder was informed
that the local mission and the Administration were starting a program to teach English he exclaimed, “Now we shall have aeroplanes and ships” (Lawrence, 1964, p. 271)!

Street (1987) interprets this desire for education in less patronizing terms than simply a search for cargo secrets:

If their aim is represented as ‘to get a grip on the missionary God and force from him his secrets’ then it can be interpreted...as attempting to get a grip on the mission goods and force from the missionaries the secrets of their wealth and power. In these efforts they were, in fact, quite right to recognize that literacy was closely connected with such wealth and power. If they wanted the latter they had to command the former and the Europeans had shown them one way to do so. (p. 26)

The inadequacy of this attitude toward literacy denigrates a viable form of human communication and interaction. Reading and writing, in this case, are worth exploring only for material gain. The profound impact that poetry, plays, novels, short stories, and journalism have had on literary societies is, in fact, hidden from the Melanesians.

Literacy does not belong to all of them, but rather to those who can break the code and find the secret to prosperity. In promoting a circumscribed version of literacy, the foreign educators unwittingly provided the milieu from which “ritualized literacy” (Street, 1987, p. 19) emerged.

Introduction to literacy in foreign languages. Not only was the initial encounter with literacy in the Madang and Morobe Region regulated by foreigners, but the language of literacy was foreign as well. The mysterious quality of the print, therefore, supported their traditional view of esoteric knowledge and contributed to their interpretation of the purpose of reading and writing. The Numanggang were no exception. Their first introduction to print came with the arrival of the Lutheran missionaries in 1929. Teaching
the people to read in Kate, an unfamiliar coastal language, initially shrouded the activity in ambiguity. Later, the Lutheran mission adopted Melanesian Pidgin as the lingua franca of the church and all religious materials were produced accordingly. While easier to read because of short words and limited vocabulary, the grammatical structure of Pidgin reflected the English language, not the local languages such as Kate. English was introduced as the accepted national language and the only one to be used in public education. Lawrence (1964) cites the Field and Clinical Survey Report of the Mental Health of the Indigenes of the Territory of Papua and New Guinea in which Sinclair (1957) states that the “belief in the magical effects of learning to speak English and the belief in its supposed power to confer all the material benefits of our culture may be an important underlying drive towards the acquisition of a European ‘education’” (p. 271).

A few gifted individuals learned Kate fluently and a number of the elders continue to preach in this coastal language on Sundays. Most, however, stumble severely whenever attempting to read. Only a very small percentage of the population is proficient enough in English to read or write, and no adults have ever been observed reading aloud in English. Melanesian Pidgin, because of its growing use as the language of trade, and because it is easy to read, is rapidly becoming the language used in written materials for the region.

Vernacular literacy, on the other hand, has the potential of placing printed material in the arena of daily communication. Numanggang is still the language of choice used in activities within the community. Initial work in adult literacy has proven the value of using historical accounts in Numanggang of their ancestors, traditional stories,
and personal stories of current life experiences – all of which are told and re-told on countless verandahs for evening entertainment. Unlike secret incantations and chants known only to powerful men and women who claim to have experienced dreams, visions, and encounters with spiritual beings, these oral accounts are all within the domain of the average Numanggang, both child and adult. Initial literacy work, using these vernacular oral stories, has indicated that written words in Numanggang can be viewed as an extension of oral communication rather than as a tool for mystical power manipulation.

Summary

The traditional Melanesian cosmic order included creative deities, spirits of the dead and those presently living. In antiquity, the deities endowed men with culture and the secret formulae and rituals necessary to manipulate the spirit world. Both deities and the spirits of the dead could be forced into beneficial or destructive actions toward those living. Only leaders (“big men”) who possessed the “true knowledge” of the rituals and incantations, however, could operate with the power necessary to control the cosmos.

Beginning with Maclay’s arrival in 1871 on the Madang coast and culminating in current encounters with wealthy foreigners, the local people of the Madang and Morobe region have been forced to integrate new information and observations with traditional belief systems. The Numanggang’s initial encounter with foreigners came when German missionaries of the Lutheran Church evangelized the area. Later encounters with Australians, American and Japanese soldiers, SIL linguists, NAC leaders from Canada, and Habitat for Humanity personnel from the United States continued to require adaptation.
The events of this century indicate that one result of contact was the development of numerous malleable syncretistic beliefs rather than rejection of the original epistemology and conception of the cosmic order. Interpreting reading and writing in a manner consistent with their world view, literacy became a ritualized activity, at times even being incorporated into cultic practices.

Although the Numanggang would be loath to disclose their internalized belief structure should it conflict with that of the European questioning them, there are indications that some of the Numanggang continue to search for the elusive road to the cargo. Because literacy was filtered through the structure, purposes, and chosen languages of the foreigners, the Numanggang were denied an understanding of the magnitude and potential for written communication. Sending children to school in order to learn the secret of material prosperity indicates the failure of those involved in literacy education to create an atmosphere in which the Melanesians in general, and the Numanggang specifically, can explore the dimensions of reading and writing as culturally embedded communication. The significance of this failure directly impinges on strategies necessary for an effective literacy program.
Mother Tongue Literacy – Potential for Understanding the Relationship between Oral and Written Language

The importance of building the Numanggang literacy program on indigenously authored literature in the vernacular as a means of combating exclusivistic and esoteric notions of literacy has been established. The use of the vernacular, rather than foreign languages, would answer the need for meaningful communication, and would allow every Numanggang, not just leaders, to participate. However, due to the fact that Numanggang speakers have relied exclusively on oral language to bear the entire communication load, the reasons for writing their language have not been established. Fostering an understanding of the connection between oral and written language through the use of locally generated literature is the critical foundation upon which the literacy program must be built.

Previous Exposure to Literacy

Children of a literate society come to the classroom with an understanding of reading and writing that will allow them to embark on the adventure of becoming literate immediately. They have been “immersed in a literate family in a literate community... [and are] aware of the social and ...communicative functions of written language” (Goodman, 1996, p. 128). Literacy instruction for these children began informally in the early childhood years with a “literacy-rich environment” (Cecil & Lauritzen, 1994, p. 17). Bedtime stories, labels on toothpaste and soap, menus at restaurants, street signs, writing on cereal boxes, and labels on toys have all been part of their everyday experience.
The adults in their lives have modeled the purposes and the value of literacy by reading newspapers, books, and magazines, and by writing letters, checks, and notes. Today, with computers in many homes, adults model receiving and sending e-mail, operating word processors, and “surfing” the Internet – all skills dependent on literacy. These literacy-rich children know that meaningful communication can be shared in many forms, both oral and written.

Adults from both preliterate and literate societies achieve communicative competence – they are fluent in their language. They have mastered the complex phonological and grammatical structures and aptly apply nuances of meaning. Social context is considered and appropriate forms of language are used (Peregoy & Boyle, 1997). However, adults from a preliterate or semi-literate community face the task of learning how to read with a deficit in their knowledge of the relationship between oral and written language. They enter the literacy class with little exposure to print. Not only does reading and writing seem unrelated to their daily lives, but the language in which it is taught is often foreign. These men and women, rich in oral language proficiency, often fail to see the need to learn how to read, even in their own mother tongue.

Working among the Murrinh-patha people in the Northern Territory of Australia, Chester and Lyn Street (1993) sought ways to help motivate the adults to join in literacy learning. “We recognized that few people were really motivated to read. After all, their ancestors had never learned to read and write. They knew all the law, how to survive in the bush and live to an old age. So, was there really a necessity for them to learn to read?” (p. 34).
The same sentiment can be found among aboriginal peoples throughout the world whose languages remained unwritten for centuries. In Canada’s Northwest Territories the culture of the 57,000 native inhabitants was “rooted in oral tradition. Wisdom, mores, survival skills and care of the land and animals were passed from elders to the children and youth through storytelling and the telling of legends and truths from the ancestors” (Fogwill, 1994, p. 229). Similarly, the Numanggang live in a world of oral communication. They are not bombarded with print in their daily lives. Television and computers have not invaded their homes. Very few have bank accounts; no one writes checks. There are no restaurants, no book stores, no newspapers or magazines. Perhaps once a year someone will send a letter written in Pidgin or Kate to a fortunate villager. Parents do not write to their children who are boarding at public schools. In fact, most adults feel very uncomfortable holding a pen or pencil. Only on Sunday in the context of religious services is there exposure to print, but even then, it is in a foreign language.

Because literacy has not permeated the society, speech bears the full burden of communication. Evening stories, one-on-one conversations, public speeches, and oral messages sent by personal couriers support this society which is built on deeply interconnecting relationships. Rather than deprive the Numanggang of their rich oral tradition, the introduction of reading and writing in the vernacular could expand their “communication repertoire” (Street, 1987). The rich would become richer. Traditional stories, historical accounts, personal biographical episodes, and current events could be recorded and shared with the entire group – not just those sitting on the verandah.
Before the adults will participate in a literacy program, however, reading and writing must be perceived as alternative forms of listening and speaking. They must understand that oral and written language are reflections of each other (see Figure 3, p. 10). The use of the vernacular language holds the promise of helping the Numanggang to make this connection. "Because reading depends so much on prior knowledge and prediction, it is very difficult to read anything written in a language with which we aren't familiar" (Smith, 1997, p. 106).

Wendell (1997), observed "reading" Spanish by indigenous people of South America and denounced the process as meaningless:

Unless much time and effort are expended in learning to speak the dominant language, learning to read it probably does more harm than good since learners miss the point that reading is a form of communication. In fact, what they learn is that reading has nothing at all to do with communication; it is sound-calling and nothing more. (p. 12)

In both spoken and written mother tongue communication, however, the interdependent sub-systems of language — graphophonemic, syntactic, and semantic — support one another and, to the native speaker, convey meaning.

The Interdependent Subsystems of Language

To those in a literate society replete with vernacular literature, language is perceived as multi-faceted — "a supersystem whose component systems are inextricably interwoven" (Altwerger, Edelsky, & Flores, 1991, p. 37). These interdependent, inseparable subsystems of language include "(1) the phonological (in oral language), the graphic and graphophonic (in written language);...(2) the syntactic; [and] (3) the semantic" (Altwerger, Edelsky, & Flores, 1991, p. 11). Without necessarily being
formally taught, members of a literate society are manipulating these language systems to varying degrees. They understand that all the “systems of language...work together when we read” (Harste & Short, 1995, p. 7) and when we write. Although their use of oral language is more advanced than that of written language, children and adult members of literate societies entering the classroom know that both of these sign systems, speech and print, can be employed in attempts to create and convey meaning.

Furthermore, these learners understand that the systems are interdependent. In their real life experiences, written language on packages, on cars, in restaurants, etc., is consistently embedded in meaning and is context-specific. Literate people know that oral language, as well as written language, is a socio-linguistic vehicle to shared meaning.

According to Altwerger, Edelsky, & Flores (1991), “...in real instances of language use [in literacy], all the systems are always present” (p. 12), thereby supplying multiple comprehension clues to the listener, speaker, reader, and writer. If a reader is to comprehend the meaning of the text, it is imperative that all these cueing systems be in place:

Only when the semantic and pragmatic cueing systems are accessible to the reader and when these systems are used in concert with the syntactic and graphophonic systems are there the necessary supports for making the most proficient use for the development of the reading strategies. When all the systems of language are in place, readers predict and confirm language...and integrate what they are reading with what they know in order to comprehend and construct their own meanings. (Goodman, Watson, Burke, 1996, pp. 13-14)

Literacy offered in a foreign language in which the reader is not fluent results in inability to predict, integrate knowledge, and construct meaning. Reading becomes a guessing game.
When all the cueing systems are present, however, meaning takes its rightful place at the heart of authentic language communication, both oral and written. Every instance of language emerges from the semantic core of personal meaning and is encoded in syntax and graphemes (for written language) and phonemes (for oral language). Because “...written language is intentional and is designed to mean” (Harste & Short, 1995, p. 13), the teaching of reading and writing will be successful only when the semantic subsystem interprets the grapho-phonemic subsystem, and the grapho-phonemic subsystem supports the semantic subsystem. Because the subsystems of language are interdependent, a curriculum for literacy instruction should be built on the interweaving of language’s component parts. If the literacy program is based on a language that does not convey meaning, then the program is futile.

Connecting Oral and Written Language through Literacy Awareness

In order to lay the groundwork for learning to read and write, the purpose of literacy and its function as a means of meaningful communication must be modeled and firmly established. Various methods for increasing literacy awareness have been tried throughout the world. The Numanggang adult program will necessarily include a variety of ideas to promote literacy. Two strategies, large scale literacy awareness campaigns and local literacy awareness days warrant inclusion, although sensitive culturally appropriate adaptations must be considered.

Large scale literacy awareness campaigns. An effective means of reducing the lack of a literacy-rich environment is literacy awareness campaigns. On a large scale, the “total literacy project” of Ernakulam, an epoch-making experiment in the state of Kerala,
India, provides a successful example of a massive literacy campaign. Beginning with the enormous task of teaching 185,381 adults to read, all levels of society joined in a coordinated effort. Particular attention was given to a mass campaign of awareness and motivation. Roving drama teams were trained to perform street plays and folk dances to attract people to the centers. Articles promoting literacy in newspapers and journals, stickers placed on cars, posters, literacy boards, and banners all bombarded the community with meaningful print. As the adults began to read, individual self expression and community recognition of their efforts dramatically increased motivation. Women and the handicapped were given equal opportunity. One man with no arms joyfully learned to write with his toes (Joseph, P. J., 1997, p. 7)!

Local literacy awareness days. When working in a smaller ethnic group, an organized effort can occur on a small scale. Tanyi Mbuagbaw (1996), a linguistic and literacy specialist in Cameroon, West Africa, proposes organizing a “literacy awareness day” (p. 9) in which literacy in the vernacular is demonstrated in a gala event which hosts prominent members of the local and national community. Speeches, invitations to join literacy classes, dramas, awards and feasts are given to increase understanding and motivation. If conducted in a manner that demonstrates the purposes and value of written vernacular language as another mode for communication, those exposed to literacy in these campaigns will hopefully make the connection between oral and written language.

Elements of both large scale and small scale efforts to increase literacy awareness will be used for the Numanggang program. Those literate in the vernacular will be encouraged to plan and implement the campaigns in order to model the written extension
of oral language. The details of the effort will be determined by the Numanggang who have satisfactorily made the connection between written and oral language.

The Need for Meaningful Literature

Literacy campaigns and the institution of adult literacy programs will be without purpose, however, unless there is something to read. Newly written languages suffer from a dearth of printed materials. The creation of meaningful literature that invites engagement is perhaps the greatest challenge facing those in emergent literacy programs (Fogwill, 1994; Jennings, 1997). However, indiscretion in the selection and creation of the material due to a zealous desire to provide books may, inadvertently, cause difficulty for new readers from previously nonliterate societies who are not only unfamiliar with written language, but often unfamiliar with the world outside of their community.

Goodman (1996) emphasizes the necessity of prior knowledge of the subject matter of the printed material when reading is attempted:

The ability to make sense of what we read is always limited by how much we already know about what we are reading... When we construct meaning from reading, we must draw on what we know, what we believe and what we value... The more we know about what we’re reading, the easier it will be to read... If writers want to be comprehensible, they must write with a sense of the experience, cognitive schema and beliefs of their target audience. (pp. 106-107)

Literacy material, then, must be built on the prior knowledge of the community for which it is produced.

Weaver (1994) states that a person’s schema – organized understanding of a particular subject or category – is contingent upon “a variety of social factors: our cultural, ethnic, and socioeconomic background; our age and educational attainment; our
interest and values, and so forth” (p. 27). Meaningful reading occurs only when words are read in grammatical, semantic and situational context that is familiar to the reader.

Not only do prior knowledge and personal schemata determine the ease and comprehensibility of reading, but the reader’s own cultural perspective, world view, beliefs, and values will influence the interpretation of what is read (Goodman, 1996; Steffensen, Joag-Dev & Anderson, 1979; Weaver, 1994). “Readers acquire meaning from text by analyzing words and sentences against the backdrop of their own personal knowledge of the world” (Steffensen, et al., 1979) Two studies dramatically portray this truth.

In the first study, Steffensen, Joag-Dav, and Anderson (1979), state the following presupposition:

When a person reads a story, the schemata embodying his background knowledge provide the framework for understanding the setting, the mood, the characters, and the chain of events. It stands to reason that readers who bring to bear different schemata will give various interpretations to a story. In particular, an individual who reads a story that presupposes the schemata of a foreign culture will comprehend it quite differently from a native, and probably will make what a native would classify as mistakes. (p. 11)

In the study, two groups of subjects having different cultural heritages were asked to read two different passages, each presupposing the cultural background knowledge of one of the groups. “Indians (natives of India) and American subjects were asked to read and recall two letters, one that described an Indian wedding and one that described an American wedding” (12). As predicted, it was found that “the schemata embodying background knowledge about the content of a discourse exert a profound influence on how well the discourse will be comprehended, learned, and remembered” (p. 19). An
interesting distortion, which highlights the significance of schemata, is the interpretation given to the following passage concerning the American bride’s wedding dress:

Did you know that Pam was going to wear her grandmother’s wedding dress? That gave her something that was old, and borrowed, too. It was made of lace over satin, with very large puff sleeves and looked absolutely charming on her. The front was decorated with seed pearls. (p. 20)

Because wealth and status are important to the Indians, the dress was perceived by one Indian subject as inappropriate: “She was looking alright except the dress was too old and out of fashion” (p. 21).

The second study, conducted by Reynolds, Taylor, Steffensen, Shirey, and Anderson (1982) again substantiated the fact that “cultural schemata can influence how prose material is interpreted” (p. 353). Black and white students in the eighth grade were asked to read a recounting of “sounding,” a form of verbal play familiar to those in the black community. The white students tended to interpret the passage as a description of a fight whereas the black students understood the cultural nuances and interpreted it as verbal play. When told that the white students thought the participants in the selection were fighting, one black student commented, “What’s the matter? Can’t they read?” (p. 365).

In the reading process, two of the most critical factors are “the cultural background of the reader and the cultural perspective of the text” (Pritchard, 1990, as cited in Johnson, 1991, p. 291). Wendell (1997) delineates four stages of literature on a continuum of easy to difficult for the beginning reader which reflect these critical factors. Stage 1 includes literature which issues from the life experiences of the author and are familiar to the reader. Stage 2 literature contains content experienced by a native author
in a setting outside of the ethnic group and therefore beyond the experience of the reader. The content of Stage 3 is from the outside world that is not directly experienced by the author and unfamiliar to the reader. Stage four literature is translated from a foreign language and a foreign culture unknown to both author and reader. See Figure 7 below.

**Easy-to-Difficult Reading Material**

Author: Member of local culture; speaker of local language
Readers: Members of local culture; speakers of local language

<table>
<thead>
<tr>
<th>Stages</th>
<th>Content in Relation to:</th>
<th>Form of Presentation</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Known</td>
<td>Direct, Personal</td>
</tr>
<tr>
<td>2</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Vicarious</td>
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**Figure 7.** The Four Stages of Literature (Wendell, 1997, p. 21).

The validity of Wendell’s assessment of literature is confirmed by a study conducted in 1981 by P. Johnson and discussed in Johnson (1991). Iranian ESL students were asked to read two stories – an Iranian folk tale and an American folk tale. Half the Iranian subjects read a simplified English version of the stories; the other half read an unadapted version. Their answers to recall questions on the texts verified the following:
The cultural origin of the stories had a greater [impact] on comprehension for the Iranian students than did the complexity (unadapted vs. simplified) of the texts...these subjects understood the Iranian folktale better because they relied on their schema for the story’s structure rather than on their ability to read and comprehend English. (p. 12)

This and other studies verify that when a text is based on culturally familiar, rather than unfamiliar, motifs and rhetoric, comprehension increases (Johnson, 1991).

Recognizing the importance of prior knowledge and cultural schemata, SIL recommends that literature in vernacular languages be written by local people for the following reasons: 1) the style of writing is familiar to the new reader; 2) the subject matter is familiar; and 3) local history, customs, and values will be reflected in and supported by the literature (LinguaLinks, 1998, record #57270-57280).

Self-generated Literature – Increased Potential for Comprehension and Interest

When developing written language materials that new readers will automatically interpret as meaningful, perhaps the most appropriate source is often overlooked – the writing of the new readers themselves. The author begins with personal perceptions residing in the inner core of semantic meaning and translates those perceptions into the subsystems of syntax and graphophonemes. When reading one’s own text, the subsystem of semantics is fully and completely in place. Even new readers can, with the help of peers and editors, produce a meaningful text that reflects acceptable writing conventions, particularly when the orthography mirrors the phonology.

Principles discovered in working with children who are learning to read can be applied to adults in emergent literacy programs:

A crucial task in reading is to help children learn about the relation between the oral language they use and the written language others have used in books. An
easy way to make this relation apparent is by making use of children’s dictated language in initial reading instruction. Stories dictated by the total group, or by individuals, can serve as a basis for instruction. The child composes orally, sees talk being written down, and then practices reading what was written. The interdependence of the two forms is thus established. (Stewig, 1983, p. 26-27)

The potential for meaningful communication through print increases dramatically when using the vernacular, and can be simplified even further for new readers if the text is self-generated.

**Personal register.** Smith (1997) proposes that “...there are many different registers of written language” (p. 108). Language used in children’s stories is different than the language used for personal correspondence. Newspapers, magazines, advertisements, businesses, etc. all utilize their own particular “register” of written language. Furthermore, because language is a vehicle for the personal sharing of meaning in a social setting, it seems reasonable that every individual would manipulate language in an individual manner. Thus, every person would, in essence, possess a unique “register” of written language. “Language users produce texts that reflect the context in which they find themselves” (Harste & Short, 1995, p. 10).

Written language, therefore, is most easily read by the one who wrote it. Not only is the core semantic system in place, but the unique syntax and word choice are familiar. In an emergent literacy program where little or no literacy materials have been produced in the mother tongue, what better choice for learning how to read could there be than self-generated, edited text? A literacy program based on indigenously generated materials offers the possibility of reading the text in context.
Personal interest. In *Writing for Adult New Literates*, Jennings (1997) reports the success of programs based on literature generated by those beginning to read:

One of the most exciting recent ideas for getting materials written for new readers is to involve the new literates themselves in the process...Programs that have tried it attest that involving new literates in the writing is well worth the effort, as there is no one who knows better their interests and preferences. (p.31)

Conversely, a literacy curriculum containing prescribed or introduced literature may fail to interest the new readers. Reporting on literacy work in the rural regions of Portugal’s interior, Abreu & Margalha (1994) note:

Even if the books are captivating, informative and educational, their subjects are often removed from the daily life of the community who need to read about subjects close to their cultural roots, making reading more pleasurable and encouraging the revival of tradition. (p. 105)

Wendell (1997) contends that most educators incorrectly “assume that to catch the interest of preliterate people, the content of the written piece must be something new to the hearer/reader.” On the contrary, she states, “what is really most interesting is that which is most familiar” (p. 18). A linguistic team in Colombia, South America asked a language helper who could not yet read, to describe in detail the appearance and habits of the wild animals in the region. These descriptions were transcribed by the linguist and typed in a small booklet. The helper’s response was intriguing. Touching the book in reverent awe he proclaimed, “It is beautiful.” Then turning to the linguist demanded, “When are you going to teach me to read?” (Wendell, 1997, p. 18). In the pilot literacy programs among the Numangggang, it was repeatedly obvious that the locally authored literature with familiar themes, idioms, and emotive content were the most well received.
Even in classrooms in the United States where the shelves are filled with attractive books, students treasure self-generated literature. In a six-week series of lessons, eighth grade students wrote, edited, and illustrated their own books. According to Rezabek and Noonan-Moore (1992), “Regardless of how students engaged in the process, they were all proud of their products...the books themselves [being]...highly valued by the students” (pp. 196-197).

Well intended literacy trainers, working in societies where initial entry is being made into the world community of literates, may tend to zealously introduce attractively designed books with foreign text. Rather than motivating the community to read, however, it can denigrate the innate beauty of expression specific to each language and culture. “The distinctive qualities of native-authored literature drawn from village resources is unique and can not be duplicated either by imported literature or by nonnative authors writing about the culture” (Spaeth, 1997, p. 3).

Unique language features honored. Vocabulary, grammar, discourse features, subtle innuendoes, and even humor are culture specific. The English word sharp can be translated in 22 different ways in Russia; the word bo in Bamana, a language of Mali, West Africa, has 61 potential matches in the English dictionary (Valentine Vydrine, a Russian lexicographer, personal communication, July, 1998)! The Numanggang have over 20 distinct words for banana. Furthermore, certain single words in one language require an entire phrase in another. There is no word for love in Numanggang. It requires an idiomatic expression: Welene wapum dutok yatak (“My stomach stands big for you”).
Grammatically, the manner in which words are combined into larger chunks may be similar within language families, but may be wildly variant from distant languages. Not only does the arrangement of the parts of speech reflect unique principles, but the inclusion or exclusion of particular elements such as modifiers and intensifiers mirrors community and individual choices in communicating meaning.

The discourse features of a language also set it apart from any other. This is particularly significant when developing literature for a program. The elements deemed important for a good story vary from culture to culture. A typical European tale portrays a protagonist overcoming a problem or challenge. Japanese stories often tell of a kind person who performs benevolent acts and is rewarded. A song-chant highlighting a moral or climax is a crucial element of Tokelauan (Pacific Islands) stories. Fijians use profuse symbolism (Spaeth, 1997). Several studies have confirmed the significant influence the rhetorical traditions of the author’s native culture have upon the structure of writing, even when writing in a foreign language (Johnson, 1991, p. 16). It would be a travesty to impose foreign “schemata of ‘story structure’ upon emerging authors” (Spaeth, 1997, p. 9).

Foreign literature cannot possibly accommodate the linguistic variety of expression or the culture-specific rhetoric of societies rich in their own oral tradition. Native speakers should be encouraged to become native authors with every language specific feature and convention honored.
Writers' Workshops

Numerous literacy programs throughout the world have instituted various types of indigenous writers' workshops for the sole purpose of creating new literature and training writers. (Carr, 1993; Jennings, 1997; Wendell, 1997; Zandstra & Zandstra 1997). Length of time for each workshop depends on predetermined objectives. Those focusing on training may require as long as a few months while others can accomplish their goals in several days (Jennings, 1997). The significant elements of a writers' workshop include: 1) inspiration to write, 2) time for drafting, 3) participation in the process of revision, 4) publication, and 5) celebration (Spaeth, 1997; Harste & Short, 1995; Wendell, 1997).

Fogwill (1994) describes the change in attitude and subsequent engagement in writing at a workshop held in Canada:

Many of the participants have exclaimed that they have never thought of themselves as “writers” until they experienced the writing workshops. For the first time they are deciding to write, in their language, poems, stories, books that come from their own experience and their own imagination. (p. 244)

Older participants may cherish the hope of preserving their history and culture in much the same manner as one would write personal memoirs. The Hmong, displaced from their native land, said that only their mother tongue was sufficient to adequately portray their “experiences and ‘deep inner feelings’…” “We want to write down beautiful stories about our culture, things that happen in our country, in Hmong, for our children. We want to preserve our culture in written language” (Kang, Kuehn, & Herrell, 1996, p. 6).

An increasing bank of literature – legends, historical accounts, personal experiences and testimonies – is being written by numerous Numanggang young adults.
Many of these stories have been edited and published in various forms. The response to this literature is warmly similar to the evening story times on the verandahs – the same anticipation, hilarious outburst of laughter, and emotional engagement. The words are theirs. The stories are theirs. The joy is theirs.

Summary

Not only must the Numanggang literacy program be birthed from oral daily communication in order to combat exclusivistic and esoteric notions of literacy, but also to provide the potential for understanding the relationship between oral and written language. Unlike learners in literate societies, the Numanggang have not been exposed to meaningful print. Literature in foreign languages has provided their only contact with written language. Because there is faulty understanding of the semantic subsystems of these foreign languages, reading becomes a guessing game. Mother tongue literacy, on the other hand, supports all of the interdependent subsystems of language and thus facilitates an understanding of the connection between oral and written language. Literature authored by the people reflects prior knowledge and cultural schemata and will, therefore, aid in motivation and comprehension. Local language features and rhetorical traditions will dictate the content and form of the literature. In addition, indigenously authored literature produced in future writers’ workshops will assure local ownership of literacy and will continue to foster fluency and interest in reading and writing.
The Need for Indigenously Illustrated Literature

Mugalika, Isum, and Gatiwin could not put the book down. As they huddled together late into the evening, the Bible stories leapt from the colored pages. The illustrations, sequenced in comic book format hypnotically drew them page by page. Though the text was in English, a second language to these young educated Numanggang men, they were able to decipher the words with the aid of the illustrations. In only three nights they consumed the entire 766 page volume.

In stark contrast, a major concern of the 1998 Papua New Guinea branch conference of The Summer Institute of Linguistics (SIL) was the failure of many linguistic teams in the endeavor to motivate ethnic groups in emergent literacy programs to read material provided for them in their mother tongues. Though many factors contribute to the problem, the lack of aesthetic appeal could be a major factor in their disuse. Of particular concern is the artwork of the illustrations which often, rather than enhancing, detracts from the overall presentation of the literature. Due to the fact that SIL is a community of linguistic scholars, and not artists, the text of literacy materials produced often surpasses their artistic appeal. If, however, the text is to be read, its presentation must, as far as possible, compete with the literature available in the national languages, English and Melanesian Pidgin.

In the Numanggang adult literacy program, the problem of presentation of the literature is a relevant one. The only literacy materials available in the mother tongue are those that have recently been created by the Numanggang or with their editorial advice. Numerous stories have been written that need to be published and made available.
Questions concerning illustrations, lay-out and presentation need to be answered prior to publication.

Just as the text itself should be an expression of authentic Numanggang language and culture, the illustrations in locally authored material must reflect the life, perception, and aesthetic values of the people. The research which explores the importance and impact of illustrations in literacy materials and the creation of pictures in emergent literacy programs in newly literate societies will offer important insight into the place illustrations will have in the Numanggang program.

Answers to the following questions were explored in the available literature:

1. Are illustrations really necessary?
2. Are pictures understood?
3. What pictures should be used?

The justification for the creation of literature replete with illustrative content depends on affirmative answers to questions 1 and 2. Only then would question 3 merit exploration.

**Definitions**

Before a perusal of the available literature is undertaken, a definition of two important terms will prove helpful. The terms, *illustration* and *pre-literate*, could be misinterpreted unless properly clarified.

*Illustration*

In the literature dealing with the purpose of using pictures in literacy materials, the term *illustration* refers to pictures integrally associated with text (Cianciolo, 1970; Schwarcz, 1982; Stewig, 1992). This definition is stated explicitly by Davis (1991):
The Western world has developed a singularly interesting mutation which we call the "illustration"... An illustration is an attempt to emphasize the key points, topics of a story, or any other written work by offering a visual representation of that point or topic. So then, it is an extension of the written word. (p. 4)

A variety of illustrations can be used in literature and the term is not confined to any particular style. The term *picture* is broader. An illustration, therefore, is a special function of a picture. The research studies conducted to discern the understanding of pictures among preliterate societies were not done in connection with text material, and the pictures, therefore, were not illustrations in this limited sense of the word. Because authors and researchers do not strictly adhere to the distinction in definition between *picture* and *illustration*, however, these terms will be used interchangably in this paper with the understanding that the discussion of *pictures* is for the purpose of illustrating literacy material. Although maps, graphs and charts can also illustrate text, they will not be discussed.

*Preliterate*

The term *preliterate* refers to those societies that are encountering written language for the very first time. Because of encroaching civilizations, there are few truly preliterate cultures in the world. However, other terms have their limitations. *Non-literate* could be interpreted as having paternalistic overtones. *Semi-literate* denotes some ability to read. Many of the ethnic groups in which SIL is working would fall into this category but the written language has generally been a foreign one. The purpose of investigation into the literature was to discover if preliterate as well as semi-literate peoples should be offered illustrations along with print in their literacy materials. For the sake of simplicity, the term *preliterate* has been chosen.
Limitations

In addition, it must be stated that the available literature concerning the purpose of joining words and pictures deals mostly with books for children for the simple reason that most illustrated volumes have been produced for children, and most educational research dealing with this topic has been done with children.

The advent of photo journalism (Feldman, 1980-1981, p. 651) and the current renaissance in illustrated literature, however, speaks of the universal appeal of illustrated material. Moss (1986) praises the potential of “picture books for the older reader” (p. 130) particularly when those readers are newly literate. Schwarcz & Schwarcz (1991) support the creation of adult renditions of children’s picture books:

The countries that have developed the picture book to a high artistic level also commit it to serious motifs and themes. A stage has been reached where significant picture books are being created that are of interest to adults, not only as parents, or in any professional capacity, but as persons open to the influence of the arts. These books embody different appeals, mean different things, and speak in different tongues to young people and to adults. (Schwarcz & Schwarcz, 1991, pp. 5-6)

Western research on the cognition and/or perception of pictures has been conducted on babies, children, and adults (Hochberg & Brooks, 1962; Gibson, 1969; Kennedy, 1974). In cross-cultural studies, the research seems to be limited to school-aged children and adults, with a particular interest in older participants (Cook, 1981; Dawson, 1991; Deregowski, 1980; Gudschinsky, 1973; Hudson, 1960; Johnson, 1991; Kennedy, 1974; Munroe & Munroe 1969; Thouless, 1933; UNESCO, 1973). Using the available literature, an attempt will be made to answer the three questions stated earlier concerning the inclusion of illustrations in literacy materials for Numanggang adult readers.
Are Illustrations Necessary?

History of Illustrated Text

Certainly the written word adequately conveys meaning. Volumes without illustrations line row upon row of books on library shelves. Illustrated books are, historically, a rather new phenomenon. Hand-illuminated texts remained in the protected possession of teaching monks for centuries (Robb, 1959; Pitz, 1963), but the first recorded illustrated book printed for public purchase was a volume of Aesop, printed by Caxton in England in 1484. In 1493, Der Ritter vom Turn, illustrated with woodcut prints, became available in Switzerland. Then, nearly two centuries later, Bishop Comenius of Nuremberg envisioned the use of pictures for teaching materials. Contrary to popular educational conventions of his time, Comenius desired to make knowledge attractive to youth and was quoted as saying, “Pictures are the most intelligible books that children can look upon” (Pitz, 1963, p. 19). In 1658 the bishop printed Orbis sensualium pictus, a volume for young scholars. Shortly thereafter, an English translation of Comenius’ book came into use and remained in print for over one hundred years. The era of illustrated books had dawned (Pitz, 1963).

A renaissance of illustrated books, particularly children’s books, began in the late 1920’s (Klemin, 1966, p. 15), and continues today in the proliferation of diverse integrations of visual and verbal communication for all ages. Photo journalism, comic books, television, computerized games and interactive learning modules combine and recombine elements of pictures and words in a kaleidoscope of illustrated text.
Do Words and Pictures Belong Together?

The marriage of words and pictures, however, has not been without contest. Early in the “renaissance” in 1926, Peppino Mangravite, an artist and a teacher of art, wrote an article in the spring issue of Progressive Education displaying his concern. Mellinger (1932) quotes Mangravite’s assessment of illustrated books for children:

It is because of my belief in the true creative vision of children that I disapprove of illustrated children’s books. In such books we have a triangular arrangement so far as mental imagery is concerned; first, that of the person who wrote the book; second, that of the person who illustrated the book (and of course this must necessarily be different from that of the author, because a second person cannot possibly express what another person conceives); third, that of the child who is reading the book. Such a situation cannot but be confusing to the child. If the words of a book are meant to evoke pictures, why the accompaniment of pictorial representation?

Modern children are becoming increasingly less imaginative...My children are not allowed to look at picture books, for it distorts their sense of reality. I want them to create freely from the experiences and images they have in their minds. (p. 4)

Even in the 1960’s after illustrated books had become an established component of literacy materials, “communications specialists were realizing that printed words and illustrations were strange bedfellows” (Davis, 1991, p. 6). The discussion of the compatibility of words and pictures seems to issue from disagreement concerning the purpose of including pictures in books. The following quotations highlight this divergency:

It must be emphasized that the main purpose of learning to read pictures is for identifying pictures which will be used for keywords and is not because reading pictures is directly related to the reading process or because pictures are needed to understand the connected material of primer lessons. (Lee, 1982, p. 161)
The purpose of a picture book, indeed of any book, is to communicate meaning. Picture books are unique in that they use words and pictures in combination to tell a story, the two working closely together, with neither taking precedence. As with the verbal elements of the story, the individual pictures interrelate, creating a visual story that supports and extends the text. (Cullinan, 1981, p. 115)

It is true that too many pictures may limit the viewer and detach him from his internal and external reality, and especially hurt his imagination. But is it less true that the imagination needs to be stimulated and that pictures can liberate the viewer from his own narrowness and improve his perception of the world? (Schwarz, 1982, p. 2)

Perhaps the disagreement is correlative with the concurrent debate between the phonics and the whole language approach to teaching reading. Lee perceives a relationship between pictures and text at the elemental word level; Cullinan intertwines both language and illustration in an integration of extended meaning. Schwarz goes a step further and believes picture books, rather than constricting creative thinking, as Mangravite says, are a springboard to an expanded world view. In order to discern a knowledgeable stance in the midst of such diversity, a discussion of the importance of visuals in human perception and the communication of meaning through the use of both pictures and language will help to clarify the issue. It will be shown, as Sinatra (1986) claims, that “illustrations serve three roles in text: 1) to attract and motivate, 2) to explain the test, and 3) to aid in retention” (p. 159).

Illustrations attract and motivate: The significance of visual perception.

According to Schwarz and Schwarz (1991), psychologists, neurologists, and even philosophers rank visual perception as the highest in a hierarchical categorization of the human senses. “Since the beginning of the species, the perception of shape, color, light, and movement appears to have played a decisive role in the survival and in the
biological, psychological, and social development of the human race” (p. 1).

Furthermore, psychologists who study visual communication are now discovering that sensory perception and abstract or verbal thinking are interdependent processes (p. 2).

If the visual sense were insignificant, then picture books would not be necessary. Children would readily learn to read abstract symbols and would internally supply illustrative content through their imaginations. Adults would be as likely to read straight text as they would be to read magazines. An illustrated volume would have no more appeal than a plain one. Personal experience and casual observation of both children and adults, however, contradict these statements.

Because the visual sense is so crucial, books for young children are “particularly rich in colorful suggestion, imaginative appeal, dramatic episode, and lively and entertaining situations” (Mellinger, 1932, p. 2). Picture books that are designed with human appeal and a variety of motifs will also have “something to say to the adult, aesthetically, psychologically, and educationally” (Schwarcz & Schwarcz, 1991, p. 19).

Robbins (1963) supports the value of the visual appeal of illustrations as a motivational factor in learning to read:

I know a child, too young to read, who loves to sit and ‘read’ a book by himself. He is reading the pictures. The illustrations tell him the story with as much wonder and delight as when his mother read the story to him the night before. He enjoyed listening to the story – he remembers it. Now, here are the pictures telling him the tale all over again. His pleasure is boundless with this new achievement of ‘reading to himself.’

When the child grows a little older, it may be the illustration in his first story book that will spark his desire to read. He is familiar with seeing words and pictures together. If the pictures are a joy, reading the words will be even more fun! (p. 10)
Similarly, Moss (1986) describes a situation in which she observed a beginning reader interacting with an Asterix book which is printed in a comic-strip format:

I thought the monotone buzz was in imitation of others reading. But when I listened carefully, I heard, ‘Come, oh Kah-eezer...’ (Caesar). The phonics had sunk in; and the story was certainly making as much sense to him as “Come, Dick, come. Run, run, Fluff”. Later I gave him a book in the Antelope series, and to his astonishment he discovered he could read a story without a comic strip. The words spoke to him now, and he was enthralled. (pp. 129-130)

Both of these examples highlight the encounter with pictures as the initial motivation for reading. Contrary to Mangravite, Cullinan (1981) believes that because the storytelling quality of the art in children’s books sparks the imagination, initial encounters with reading “take deep root and beauty [of the illustrations] becomes a memorable part of a child’s early experiences” (p. 116). Stories read to children repeatedly are remembered for the illustrations as well as the familiar text.

Illustrations explain the text: Both pictures and language communicate meaning. Human beings are social creatures and as such require interaction and communication with each other. Goldberg (1997) argues that art, like the spoken word “is a language of expression and communication that has always been and will always remain a fundamental aspect of the human condition and the perpetuation of cultures” (p. 8). Schwarcz (1982) states that “civilization began long ago to develop means of expression and communication based on the combination or fusion of different media” (p. 9). When two or more media combine they “participate in a concerted effort to accomplish something that could not be accomplished by each medium itself” (p. 14).

Especially for the new reader, pictures, as Comenius stated, are the story that is read. The symbol of understanding for the new literate “is the picture, that vivid and
concrete conveyor of both the realistic and the imaginative” (Mellinger, 1932, p. 2).

“Verbal literacy, the ability to read and write a language, is only one dimension of literacy. Visual literacy, the ability to understand and make visual messages...enables a learner to successfully interpret a broader context of the information environment” (Pruisner, 1992, p. 97). The visual contribution of illustrations to a written message augments the meaning of the communication.

Dr. Warren H. Anderson of the University of Arizona, “recognizing the power of visual images as vehicles of nonverbal communication” (Rush & Gallo, 1981, p. 57) fuses the visual with the verbal and has developed strategies for the simultaneous development of verbal and visual vocabulary. Freeman and Freeman (1992) describe the process of changing from the language of words to the language of art as a process of moving from one sign system to another:

When students draw pictures to represent part of a story they have read or heard, they are crossing media or transmediating. In the process of transmediation, students also transform language to re-present their knowledge using another sign system. Accessing a variety of sign systems in this way expands students’ communication potential. (pp. 136)

Similarly, Fountas and Olson (1996) observed that both forms of communication – the visual and the verbal – were used by students in the classroom. After engaging in close viewing of a drawing or close reading of a text, “they were able to translate ideas more fully whether from a visual to a verbal product or from a verbal to a visual product. One language informed the other” (p. 95). Their discovery supports the claim by Cecil & Lauritzen (1994) that when students “experience an expression through the arts and relate that expression to literacy, both symbol systems are improved” (pp. xiii & xiv). Cox,
Smith, and Rakes (1994) concur: “Because of the interconnections between the verbal and nonverbal systems, individuals use words to describe pictures, use words to describe their imagery, and evoke imagery to assist in word selection” (p. 161). Similarly, Hubbard (1989) discovered that students employed “words and pictures together to communicate...The children shifted back and forth, sometimes relying more on words and sometimes more on pictures” (p. 157).

As a powerful tool in literacy, Hubbard (1989) urges the use of visual images in combination with print for adults as well:

Drawing is not just for children who can’t yet write fluently, and creating pictures is not just part of rehearsal for real writing. Images at any age are part of the serious business of making meaning – partners with words for communicating our inner designs. (p. 157)

Due to the fact that the illustrated book is actually the product of the joined forces of two languages (Schwarcz & Schwarcz, 1991, p. 4), there is potential for an increase of meaningful communication.

Hubbard’s (1989) anecdotal notes reveal much of the intuitive sense children have in the correlation between word and illustration. One young child, reflects on his work, “Guess there’s things pictures can do...they really can tell the story, ya know...he points to his moon, and reads, ‘The day is over.’ See, it looks like what the words do, but at a different angle” (p. 3). Another child reveals:

First I put the whole picture in my head – a whole lot of pictures. Then, I put them on paper, one by one. I already have the words planned...I believe there’s a wall in my head, like this [she demonstrates] – there’s halves – and there’s words on one side and pictures on the other. (p. 7)
Thoughtful adults also realize the correlation between language and art. Hubbard (1989) states that E. E. Cummings considered himself “an author of pictures, a draughtsman of words.” In addition to writing, he daily painted and sketched. When asked if his painting ever interfered with his writing, Cummings replied, “Quite the contrary; they love each other dearly” (p. 6). Unknowingly, we daily use numerous forms of non-verbal, verbal, and visual communication with others. “As each of us attempts our search for meaning, we need a medium through which our ideas can take shape. But there is not just one medium; productive thought uses many ways to find meaning” (p. 3).

Feldman (1980-1981), writing several years before Hubbard, also speaks of art as a language. Observing viewers walking through an art museum, he claims they experience:

>a tremendous thrill from their unspoken discovery of art as a language, an artificial way of designating experience. They have made the discovery of a set of signs that represent something else...No single language holds a monopoly over meaning. Indeed, we have to master several languages in order to cope successfully with everyday life. (pp. 655-656)

In illustrated books, the verbal and visual form an interdependent, supportive relationship. Feldman (1980-1981) sees it as a “democratic” relationship in which visual materials “have a contrapuntal rather than a subordinate relation to the text” (p. 651). He further states that when:

>we listen to children’s reports of their experiences with pictures,...they sound very much like their reports of reading stories, or seeing films. Being brighter than professors, children do not distinguish between visual-aesthetic and literary-cognitive structures – not because they are unsophisticated but because they realize that images and ideas are two sides of the same coin. (p. 654)
The balance between words and pictures in printed material could be represented on a continuum with pictureless text on one extreme, wordless books on the other, and illustrated books in the center (see Figure 8 below). The category of illustrated books could be further divided according to the dominance of words or pictures. Illustrations could be sparse and incidental, even decorative, or they could be the "language" that carries the major communication load (Whitehead, 1984, p. 103). Schwarcz (1982) discusses this balance:

The more pictures there are in proportion to the text, the more the illustrator becomes involved in his partnership with the written word until, in the profusely illustrated book and the picture story book, we speak of composite verbal-visual narration....The more vivid the interplay between the two media becomes, and the more fluent and flexible layout and compositions and proportions are, the more dominant the picture becomes in relation to the text; for the simple reason that the simultaneous visual impressions are more attractive than the linear textual progress. (Schwarcz, 1982, pp. 11,13)

A preferred integration of the two media is expressed by Ed Young, an illustrator of children's books interviewed by Marantz and Marantz (1992). "In the end the book ought to feel to me like it is an indivisible whole: all the pictures and words linked together with a rhythm of sounds and silences, as with music and lyrics" (p. xi). Feldman (1980-1981), as well, says that "the written text exists as a kind of musical
accompaniment that anticipates, coincides with, and follows the image” (p. 658).

Schwarcz (1982) states that:

> this blending of two components forming the score (in the sense of a musical score) is intriguing because each is a rich system of expression and communication, including numerous elements, the linear one, language with its vocabulary, grammar, syntax and the simultaneous one, the picture, with contour, size, shape, color, texture. (p. 14)

In a successfully illustrated book, “picture and word must blend so well that it will seem as if one person had been responsible for both” (Cianciolo, 1970, p. 5). The story is told through a combination of the two media, “both elements sharing equally in the telling (Cullinan, 1981, p. 115). Even Stuart Cooney, a skeptic of picture books, as reported by Davis (1991), agrees that pictures and words do belong together when “the total message is central, rather than that the printed word is central, aided by illustrations” (p. 6). Davis goes on to say that “illustrations, rather than being secondary aids in printed materials, must actually be an integral part of the message design” (p. 6). Illustrations, rather than being relegated to secondary aids must become an important component of the message design for optimal transmission of communication. The full meaning of the text depends on the skillful orchestration of the language of words and the language of pictures – the illustrations illuminating the text and the text revealing the meaning of the illustrations (Davis, 1991; Espe, 1990; Schwarcz, 1982).

Illustrations aid in retention: The power of pictures. Leslie Stahl, author of Reporting Live, claims that “when the word contradicts the picture, the picture will override the word” (KVCR, 91.9 FM, February 1, 1999). Teachers understand the power of pictures:
Pictures and photos have been traditionally used by teachers of all grade levels to heighten students' perceptions and learning. Teachers of primary children have used pictures to sharpen young children's awareness of similarities and differences that exist among life situations...English teachers have used photos to increase student's visual awareness and to spark imaginative written compositions... Teachers know that when they couple a visual mode of presentation with associated verbal explanation, they provide a powerful means for expanded thinking. (Sinatra, 1986, p. 211-212)

Cox et al. (1994) explored the use of creating visual images as an aid in retention of information in texts. Because the process of learning requires the integration of prior knowledge with new information, the use of visual imagery can aid in building connections between the text and existing knowledge. When pictures are generated by the reader, recall of information in the text increases. Although “the use of both the verbal and the imaginal code can have significant effects on recall...evidence suggests that the two codes are unequal in value, with the image code having as much as twice the impact on recall as the verbal code” (p. 161). Although Cox et al. are discussing self generated pictures in a literate society, support for the primacy of the visual image is found in Giltrow’s (1977) assessment of societies where reading and writing is being introduced: “For the newly literate person who can derive meaning from both print and illustrations, I would argue that the illustrations have greater impact” (p. 26).

Summary

It has been demonstrated that illustrations in literature serve three primary functions. First, because visual perception is so significant, pictures engender motivation to read. Second, art, like the written word, is a language and when used concurrently with text, expands the potential for meaningful communication. Finally, because pictures are powerful, they aid in retention of information read in the text. The answer to the first
question, “Are illustrations necessary?,” then, is a resounding yes. In a Gallup survey conducted in 1972 in the United States, it was estimated that 80% of the books read are read by 10% of the people (Morrow, 1985, p. 8). Irving (1980) as cited by Morrow (1985) indicates that “one of the clear points to emerge from research into reading failure is that there [is]...no association between reading and pleasure” (p. 34). If these statements are valid in a literate nation, then focus on motivation and meaningful communication in an emergent literacy program in a preliterate society is absolutely crucial.

**Are Pictures Understood?**

In order for pictures to motivate and communicate, however, they must be understood. A serious hindrance to the development of illustrated literacy material may arise if pictures are not meaningful or even confusing to the target group. Before proceeding to the stage of literature production, it must be ascertained whether or not pictures are understood.

**Reading Pictures – Can Preliterate People Perceive Pictures?**

The adage, “One picture is worth a thousand words” is not true “if the people who see it attach no significance to the...representations” (Davis, 1991, p. 6). In this case it would perhaps be preferable, as Gudschinsky (1973) suggests, “to teach reading without pictures, rather than to teach the reading of pictures first” (p. 61).

The Pintupi, an ethnic group of Australian Aborigines with their own distinctive language, were confused by illustrations. Davis (1991) cites Lesley Hansen, the literacy worker among them: “European art is a meaningless jungle to the Pintupi. Line drawings
of the very familiar [are]...completely incomprehensible” (p. 4). The abstract symbols of writing, however presented no problem, likely due to the fact that the Pintupi had developed a graphic representational system to symbolize objects in the real world. Davis challenges the entire Western notion of illustrated text when introducing literacy to another culture:

What happens when similar materials are introduced in a preliterate group whose language has just been given a written form? Their minds must simultaneously grasp and compile strange new symbols, learn to establish contextual and topical relationships, and attempt to make an unconscious cognitive shift between orthographical symbols and illustrations. All over the world, language groups are being asked to do just that. They may succeed; it is certainly not an impossible task. A young child when thrown into a lake stands a good chance of learning how to swim; an adult in the same situation is more likely to drown. (p. 4).

Earlier, in 1969, Munroe and Munroe expressed similar concerns when using conventional cues such as perspective and object size to read pictures that represent the real world:

We have assumed that little or no experience is necessary, that the viewer will automatically ‘see’ what the picture is supposed to represent. We should be wary of this assumption if for no other reason than the fact that many of the conventions used in pictures in the Western world were developed only recently in our history. Some data gathered in Africa and in the United States lead us to believe that the reading of pictures is far from being automatic or innate ability and that, instead, it is – like reading words – an end product, a skill of some complexity. (p. 69)

Feldman (1980-1981) elaborates upon this “complexity.” He emphasizes that reading pictures is similar to reading words in that both occur sequentially. He likens the process to dogs leading a hunt. Running along a linear path, the dogs alight on a scent, then chase down another path, and still another. Eventually, one particular piece of evidence seems to “organize all the partial discoveries made along the way...On this
analogy, reading pictures is rather more adventurous, even more creative, than reading strings of words...It is a creatively and intellectually demanding activity” (pp. 656-657). A number of anecdotal records of preliterate societies’ struggle with picture perception which emerged during this century (Deregowski, 1980) seem to support this conclusion.

Even among teachers in Western classrooms where children have been inundated with visual stimuli, there is concern that proper measures be taken to teach the reading of pictures (Fountas & Olson, 1996; Pruisner, 1992; Stewig, 1992). Sara Gudschinsky (1973) mentions a French study that lends credence to this concern. Paul Fraissee and Gordon Murray conducted a study of the visual perception of European children. Their data show that geometric shapes were recognized most quickly, followed by words and then by nonsense syllables. Pictures of familiar objects were recognized most slowly of all (p. 61).

After reading these speculations and studies by Western writers, the conclusion might be drawn that pictures should, at least initially, be excluded from literacy materials for preliterate societies. Learning to read pictures must truly be a difficult endeavor. However, careful perusal of the available research of picture perception in preliterate and semi-literate societies reveals these people are able to understand pictures and, when there is difficulty, minimal guidance and exposure corrects the lack (Cook, 1977, 1978, 1981; Deregowski, 1980, 1990; Espe, 1990; Gibson, E. J., 1969; Hagen & Jones, 1978; Johnson, 1991; Kennedy, 1974).

The studies that do report difficulty in understanding pictures among people of preliterate societies can be criticized for insufficient data collection, poor testing
techniques, or cultural bias. Unfortunately, because of the "findings" of these studies, and because of the previously mentioned negative anecdotal records, Western attitudes about the ability of traditional peoples to interpret pictures have been negatively affected. Significant research which is relevant to the present query, "Are pictures understood?" as it relates to the development of literacy materials for the Numanggang, will be presented in chronological order beginning at the end of the nineteenth century.

**Research on picture perception among preliterate people.** Although simply reports of reactions to pictures of preliterate people rather than studies, the following two incidents bear mentioning. In 1885, an explorer named Thompson described a scene in which Wataveta women were looking at photographs of white women. Not only did they recognize them as "some of their charming white sisters," but mistook them for "living beings" (Deregowski, 1980, p. 109). On another occasion in 1904, a slide show was given by A. B. Lloyd in a preliterate society in Uganda. Deregowski (1980) quotes Lloyd's record of the event:

> When all the people were quietly seated the first picture flashed on the sheet was that of an elephant. The wildest excitement immediately prevailed, many of the people jumping up and shouting, fearing the beast must be alive, while those nearest to the sheet sprang up and fled. The chief himself crept stealthily forward and peeped behind the sheet to see if the animal had a body, and when he discovered that the animal's body was only the thickness of the sheet, a great roar broke the stillness of the night. (p. 109)

The earliest available research of picture perception among non-literate took place in the Torres Strait in 1898. W. H. R. Rivers, a psychologist and member of the Cambridge Anthropological Expedition showed the people in the Fly River area a picture of a Western man and a boy. He reported that the people had no difficulty in
understanding the picture but would perhaps have shown more interest in a culturally appropriate one (Cook, 1981, p. 101).

Deregowski (1980) cites a description by Dr. Laws as recorded by Beach (1901) of older people in Nyasaland who were looking at a picture for the very first time (unedited):

Take a picture in black and white, and the natives cannot see it. You may tell the natives: “This is a picture of an ox and a dog”; and the people will look at it and look at you and that look says that they consider you a liar. Perhaps you say again, “Yes, this is a picture of an ox and a dog”. Well, perhaps they will tell you what they think this time. If there are boys about, you say: “This is really a picture of an ox and a dog. Look at the horn of the ox, and there is his tail!” And the boy will say: “Oh! Yes and there is the dog’s nose and eyes and ears!” Then the old people will look again and clap their hands and say, “Oh! Yes, it is a dog!” (p. 108)

In 1926, Ellis Silas wrote an interesting account of his wanderings in Papua New Guinea. He simply walked around the country, drawing pictures. His records tell of his amazement at the depth of understanding the people displayed of his art (Cook, 1981, p. 102).

The next available information comes from an anecdotal note by an anthropologist, Catherine H. Berndt, working among a traditional people group of Papua New Guinea in 1959. She briefly commented that people could not interpret pictures of certain cultural ceremonies. The statement was not supported by reliable data collection or presentation of samples of pictures. Unfortunately, Anthony Forge repeated her remark in a 1970 publication. Thereafter, Western researchers developed a negative bias toward the picture perception ability of Papua New Guineans (Cook, 1981, p. 102).
One of the most often mentioned studies on picture perception was undertaken by Hochberg & Brooks (1962). They raised their infant son in a pictureless environment until he was 19 months old at which time they introduced him to pictures of familiar objects in photographs and line drawings (see Figure 9 below). Pictures of each object were handed to him one at a time, first in line form; then in photographic form. His tape recorded verbal responses to the pictures were scored by two different judges. Even the responses to the line drawings were significantly better than chance. These results, though conclusive for only this one child, are difficult to refute and lend credence to the argument that learning to perceive pictures does not require specific training.

Figure 9. Pictures from Hochberg and Brook's (1962) Study to Determine Innateness of Picture Perception (Gibson, E. J., 1969, p. 401).
Interest in picture perception among preliterate societies accelerated in the middle of the 20th century and resulted in several studies. A series of research projects in Africa took place in the late fifties and the sixties. The earliest began at Northwestern University in 1956. As a result of an ongoing debate between Melville Herskovits and Donald Campbell concerning the influence of cultural differences on perceptual tendencies, a study was conducted in 15 societies (Segall, Campbell, & Herskovits, 1966). A sample of 1,878 persons from 14 non-European cultures and also in the United States were tested using geometric lines over a period of six years (see Figure 10 below).

![Figure 10. “Picture” from Segall, Campbell, and Herskovits’ (1966) Picture Perception Study (pp. 209-210). Redrawn.](image)

A summation of their report indicates that “visual response habits are related to ecological and cultural factors in the visual environment” (p. 211). Two specific findings were reported: 1) Western peoples, experienced in carpentry and with pictures are more perceptive of visual illusions in pictures, and 2) the presence or absence of horizontal vistas in one’s environment critically affects one’s perception of foreshortened vertical lines in a picture as possible long receding horizontal lines. The research stressed that
these findings were the result of cultural experiences, not race. Again, it was found that picture perception is affected by exposure and experience.

Overlapping in time with the study done by Northwestern University, Hudson (1960) administered a test to 85 workers in a Bantu factory in order to determine ability to perceive three dimensions in two-dimensional pictorial material. The workers represented a number of sub-cultural groups in Africa (p. 183). Hudson also administered the same test consisting of 11 pictures to South African school children, both black and white (see Figure 11 on page 90). Hudson (1960) was particularly interested in conventional cues used in pictures to represent three-dimensionality – object size, superimposition and overlap, and perspective (p. 184). The participants who attended school perceived the pictures three-dimensionally, while most others saw them only two-dimensionally, whether looking at an outline drawing or a photograph (p. 207). “Formal school and informal training combined to supply an exposure threshold necessary for the development of the process” (Hudson, 1960, pp. 207-208).

However, the low scores for preliterates in Hudson’s tests were questioned by Cook (1981), Munroe and Munroe (1969) and Hagen and Jones (1978). Cook proposed that the participants would have scored higher had there not been problems with possible misinterpretations of close and far – a difficulty Hudson denies. Cook claims that an initial study of pictorial depth perception by Rivers acknowledges this particular confusion in terms. Cook himself found the words near and far to be problematic in his own research. “The arrow is far away in distance, but close in terms of how soon it will pierce the pig and how accurately the hunter is aiming” (Cook, 1981, pp. 63-64).
If Cook's assessment of Hudson's work is correct, results for understanding pictures would be considerably higher (see also Serpell & Deregowski, 1980, p. 172).

Munroe and Munroe (1969) wondered why "even the white South African school children, with all their cultural advantages only scored about 72% correct in pictures
which used perspective lines as cues” (p. 69). It was decided that Hudson’s pictures had inherent difficulties and an attempt was made to improve the quality of the pictures used in their subsequent study. After review of the work of Segall, Campbell, and Herskovits as well, they administered a new test to 24 subjects of the Logoli tribe. Their results indicate that African children with little exposure to pictorial material had difficulty in reading pictures three-dimensionally. Interestingly, however, Munroe and Munroe state that American children, with greater exposure to two-dimensional representations likewise require time and experience to interpret pictures three-dimensionally (p. 71).

Hagen and Jones (1978) also question Hudson’s research. They discuss the work of Jahoda and McGurk who thoroughly critiqued Hudson’s studies and developed a new picture test very similar to Hudson’s, but culturally appropriate for Westerners. Using the new test and Hudson’s test, they attempted to understand perception of depth in pictures among educated Scottish adults:

Jahoda and McGurk…got maximum scores of 69% for the new test and 72% for the Hudson test. On neither of the tests did European adults uniformly attain the maximum score…There of course will always be some error scores simply due to not paying attention, lack of motivation, hostility, and other such factors, but surely not of this magnitude. We are willing to argue that any test of Western pictorial depth information which fails to generate nearly 100% three-dimensional responding in educated Western adults has faults of either design or procedure or both which leave its validity open to serious question. It seems to us very unlikely that some 30% of educated Scots are incapable of seeing depth in pictures. (p. 191)

Given the above criticism, it seems likely that Hudson could have obtained more favorable results for picture perception had his test materials been adequate.

During the 1960’s, an interesting nuance to picture perception ability was revealed in a study in rural Zambia. Illiterate men and children attending primary school
participated in the study. Each was tested on recognition of animals in photographs. Even though there was considerable difference in age and education, the men scored higher in recognition of animals in the environment (e.g. zebra, lion, hippopotamus, elephant) whereas the school children scored higher in recognition of unfamiliar animals (e.g. walrus, kangaroo, polar bear). The children did seem to have a slight overall advantage, but the results support picture recognition abilities for non-readers if the image is a familiar one (Deregowski, 1980).

In 1966 another study was undertaken by John Sievert of the Lutheran Mission in Papua New Guinea to determine whether the local people could understand pictures. He mailed several types of pictures to missionaries in the country. The pictures were then shown to local people and tested for recognition. Although the study was never completed, several significant observations emerged which are helpful. It was noted that those who had more educational background were able to see more details in the pictures. Uncluttered photographs and realistic drawings as well as color outlines were understood well, whereas two-dimensional outline drawings presented difficulty (Cook, 1981, p. 103).

By the end of the sixties, research was beginning to show that preliterate people could “read” pictures. Gibson (1969) questioned the dubious interpretation of inability to perceive pictures when people were presented with a picture of a face for the very first time:

The...naïve subject is probably struck by the incongruity of his perception. The similarity of the optic array to the real face is apparent, but so is the difference – the flatness of the object, the sharp rectangular edges surrounding it, the lack of
color, the lack of motion, the absence of the back of the head. No wonder he turns it over with puzzled looks. (p. 395)

The only occasion, she states, in which instruction in perception might be required is when the representation of the real object is highly stylized, idiosyncratic, or lacking in fidelity. She infers "from the available evidence that differentiation of pictured objects is learned at the same time that distinctive features of the real object are learned" (p. 396).

Later research confirmed Gibson's endorsement of picture perception without formal training. A study among the Me'en in Ethiopia, several studies in Papua New Guinea, and one in Zambia revealed adequate picture perception ability among preliterates. Another research project in the United States resulted in significant information even for non-Western societies. The following section gives a brief summary of each of these studies.

Like Gibson, Fugelsang (1982) and Deregowski (1980) believe the lack of instantaneous perception of pictures among those encountering pictures for the first time is due to the novelty of the encounter and newness of the medium. Reporting on Muldrow's work during the seventies among the Me'en of Ethiopia, Deregowski relates:

When the Me'en, most of whom were probably entirely unfamiliar with pictures, were given a page from a children's colouring book they would smell it, examine its texture, listen to it while flexing it, even attempt to taste it, but they would entirely ignore the picture. (p. 113)

Thinking their reaction could be due to a thorough attempt to understand the unfamiliar substance, Muldrow printed new pictures on coarse cloth used by the Me'en. The shift in response was dramatic with the vast majority of Me'en recognizing the picture on the
cloth. Two of the pictures were local animals, one of a *dik-dik*, the other a leopard (see Figure 12 below).

![Figure 12](image)

**Figure 12.** Picture from Me’en (1975) Picture Perception Study (Deregowski, 1980, p. 114).

Of the respondents, 22 recognized the *dik-dik*, 7 called it something else, and 5 did not know. The leopard was better perceived with 32 responding correctly and 2 with other answers. No one said they didn’t know what it was. Even when failing to name the *dik-dik*, verbal recordings indicate that 1) the respondents correctly perceived body parts of the animal, 2) some perhaps were not familiar with the *dik-dik*, and 3) for those having difficulty in perception, the process may not be instantaneous, but does in most cases
occur rather quickly. The following conversation between a researcher and a 35 year old man looking at a picture of a dik-dik highlights all three observations:

Experimenter: (Points to the picture): “What do you see?”
Subject: “I’m looking closely. That is a tail. This is a foot.”
E: “What is the whole thing?”
S: “Wait. Slowly, I am still looking. Let me look and I will tell you. In my country this is a water-buck.” (Deregowski, 1980, p. 114)

Cook (1981) summarizes “a fairly comprehensive pilot study on pictorial perception among local people in the Central District” (p. 108) of Papua New Guinea in the early seventies. The results of this project, conducted by the government’s Department of Information Services and Extension Services, again confirmed the ability of the people to decipher pictures. Both children and adults understood the convention of size as a perspective cue and could recognize a partial figure of a man. They did report that occupation, education, and age were factors that affected picture understanding (pp. 108-109).

In 1973, UNESCO published the findings of a study to determine which of five types of pictures were most easily recognized by Zambians. Of the sample of 63 subjects, over half (46) were preliterate. The others had minimal exposure to school or to life in an urban setting (p. 118). For the present discussion, the significant finding of this research is that only two participants out of 63 failed to give satisfactory identification of the picture content (UNESCO, 1973, p. 120) (see Appendix C, page 342). The author of the study makes the following statement:

I have often met the assertion that illiterates do not understand pictures. The implication is that they have not learnt to interpret them. I feel that the implication rather is that they have in any case been exposed to pictures whose content is not familiar to them or whose style and reproduction are such that identification is
made difficult. The results of this study indicate that illiterates can identify and understand pictures with ease if certain considerations are taken into account when pictures are produced. (p. 120)

UNESCO’s finding were supported by a study during the seventies conducted in Papua New Guinea by Hutton and Ellison, two Australian psychologists. Their survey indicated that pictures containing an abundance or an absence of detail were more difficult to interpret. A secondary finding indicated that people had no difficulty in discerning depth in pictures. They were adept at understanding conventional cues indicating three-dimensionality (Cook, 1981, pp. 104-105).

During this time, a series of controversial studies conducted in Papua New Guinea were also published. These appear to be racially biased and have come to be known as the “black versus white studies.” All were administered by “various psychologists using high-powered Western techniques to test the skills of the local people” (Cook, 1981, p. 105). In each case, the pictures and/or testing procedures were not adapted to the local culture. The studies by Ord, by Waldon and Gallimore, and by Randall all used pictures from outside of the local culture. As a result, the Papua New Guinean (“black”) subjects consistently scored lower than their European (“white”) counterparts.

Cook conducted a significant study in Papua New Guinea during the seventies and subsequently published his findings as a doctoral dissertation in 1978. Though primarily focusing on what type of pictures communicate most effectively with people having little or no exposure to literacy, his statement in preliminary work that “picture communication is successful in Papua New Guinea” (Cook, 1977, p. 7) supports the
earlier research. He identifies the component of exposure to pictures, or "acculturation in the special case of contact with Western cultures" (Cook, 1978, p. 414) as a significant influence on picture communication. In his book, Understanding Pictures in Papua New Guinea published in 1981, Cook states emphatically that though minor perceptual problems do occur (i.e. mistakenly identifying a fire as a flower or a horizon line as a vine), pictures are understood.

There has been temptation to conclude from such perceptual problems that people in traditional areas lack ability to understand pictures. However, one has only to live among these people a short time to learn that their lower level of skill stems not from lack of ability, but from limited pictorial experience. (p. 3)

Even during the short duration of the test used in his research, Cook (1981) observed improvement in scoring and was forced to readjust his procedure! (p. 54). Although he attributes the increase in ability to a better understanding of the task, it appears that picture recognition skills also increased in a relatively short duration of time with minimal exposure.

By the end of the seventies, though argument continued to simmer as to whether picture perception is an innate ability or a new skill that is learned rather quickly (Hagen & Jones, 1978; Johnson, 1991), research clearly supported Kennedy’s (1974) conclusion:

Would not anyone meeting a photograph for the first time be puzzled, not know quite what to say, but certainly deny that it was, physically, the represented object? How easy it would be for an experimenter, especially if his knowledge of the native language was less than perfect, to interpret inquisitive puzzlement as an inability to take information from pictures. It is very sure that ‘primitive’ peoples show great curiosity over artifacts of our society – just as we show curiosity over their artifacts! Our pictures, print, jewelry, even our illustrations fascinate other cultures – not because the subjects find them totally incomprehensible, but because they have a pointed, well-controlled, systematic curiosity. (pp. 67-68)
Citing studies in which even monkeys and “lowly” pigeons recognized pictures and responded accordingly, Kennedy debunks the notion that humans might require training to perceive pictures (p. 84).

Deregowski (1980) echoes Kennedy’s (1974) conclusion:

Acute difficulties in perception of pictures as an inability to see that a pattern on a plane surface represents something else or gross misperception of the represented objects are relatively rare when clear pictures printed on familiar material are used. Such difficulties do not occur in great frequency even in populations which as far as can be ascertained have practically no contact with pictorial materials...It follows that such difficulties would be even rarer indeed in the populations which have some minimal contact with pictures. Most of the so-called remote, pictorially deprived, populations fall into this category. (p. 119)

Few studies are available in the literature after the seventies. Several reasons for this lack are proposed: 1) The ability to understand pictures had been established by previous studies; 2) Studies were conducted but not published and made available to the public; and/or 3) The study topics of cultural diversity and aesthetics in picture choice for literacy materials were deemed more crucial. A shift in interest to studying the cultural and aesthetic qualities of pictures that began in the seventies influenced later research (Espe, 1990; Haaland, 1984; Johnson, 1991).

Discussion of research on picture perception. Although most of the evidence discussed in the studies on picture perception affirms the ability of preliterates to understand pictures to some degree, a few researchers report difficulty. In cases where pictures were confusing, the anecdotal records must be taken at face value, but the studies can be criticized on the grounds of culturally meaningless pictures or biased testing procedures.
Davis' (1991) statement that the Pintupi of Australia were confused by pictures appears to present a problem. Yet, Davis reports that, although the literacy workers had decided not to use illustrations in the literacy material, a group of educated Pintupi insisted pictures be included (p. 4). Apparently, with exposure to illustrations in school books, these Pintupi had come to value pictures as a compliment to text.

The French study reported by Sara Gudschinsky (1973), which was conducted by Paul Fraisse and Gordon Murray, must be evaluated for its usefulness in a literacy program for a preliterate society. Their research, which indicates that children recognized geometric shapes most quickly, followed by words, nonsense syllables and lastly, pictures was conducted with literate children. Both words and picture were familiar to these readers. In addition, the focus was on length of time for recognition rather than recognition alone. This study cannot be used, therefore, as an argument against the viability of pictures. Simply because something requires a longer time to perceive does not necessarily mean it is more difficult – it may simply require a longer time to scan.

Although it may be true that the ability to read pictures is a learned skill rather than an inherent ability, the assumption that learning to read pictures is the same as learning to read text is not valid. Visual perception and the recognition of objects in the real world is a skill that is developed from birth. The transfer of this skill to “reading” a familiar object on a two-dimensional medium cannot be equated with reading the unfamiliar abstract symbols of written language, particularly for those who have not been exposed to a literate environment.
A person old enough to learn to read possesses a vast store of visual knowledge, albeit in a three-dimensional form. Things in the real world are recognized from many angles, distances, and lighting. A red rose is identified as such under greatly varying circumstances. The rose has attained "object constancy" in the mind of the viewer (Munroe and Munroe 1969; Thouless, 1933). When an experienced viewer looks at a picture of a red rose, the skill used to recognize the rose is a well-rehearsed one. Several factors are new – the medium, two-dimensionality, and perhaps other things such as color and lighting. But, the outline of the rose is familiar. It may take a little time and experience for the mind to identify it as a new form of a known object and add it to the other catalogued possibilities.

A child never sees a man as a paper-doll cut-out or a silhouette, but those forms are recognized as a man. According to Gibson (1986), the reason for this accurate perception is that the child has come to understand a man as "a sort of head-body-arms-legs invariant." Any outline drawing which retains those features is interpreted as such. "The outlines tend to be seen as the occluding edges of a man...Even when the outlines give way to line segments, as in so-called stick figures, the invariant may still be displayed and the man perceived" (p. 272).

Although naïve subjects do perceive pictures, offering clues may aid in the speed of recognition when there is initial difficulty. Often, when attention is directed to salient features of the represented object, they experience an "Aha!" phenomenon (Hagen & Jones, 1978, p. 177). As early as 1901, observation was made of older people in
Nyasaland responding to coaching in picture perception. As cited earlier (p. 86), when prompted to see the parts of the dog in the picture, they were able to recognize the whole.

The UNESCO (1973) study also confirmed that preliterates, looking at a picture for the first time are capable viewers, but at times need encouragement:

It should be mentioned that sometimes when the subject’s identification of a picture is slow and difficult to bring about, even the slightest allusion to one of the relevant details in the picture is enough to reveal the whole picture for the subject. For example, the picture of a woman cooking nshima. Given the clue – can you see a wooden spoon? – the subject immediately sees and understands the whole story in the picture. (p. 120)

When a preliterate encounters the abstract symbols of the orthography of a familiar spoken language, however, there is nothing recognizable in the letters to trigger identification. The symbols are a completely new form of representing the phonemes of the language. The aspiring reader might stare at the word rose forever and not realize it means a rose. Even a well-intentioned instructor could point out a detail of the letter combination – perhaps the letter, o – and still the learner would see no inherent relationship to the real object, a rose. The similarity between reading pictures and reading words discussed by Feldman (1980-1981) is valid in the sense that both involve a visual process of searching the page in a linear fashion. The critical element here, however, is that the viewer is looking for something familiar that will help him organize the whole. For the preliterate viewer, only the picture possesses familiar content, not the words.

The argument that learning to read pictures requires considerable training disintegrates in light of picture perception research. A person from a preliterate society who is learning to read must learn an entirely new set of abstract symbols. Learning to read a picture, on the other hand, involves the use of the developed skill of visual
perception to integrate a modified form into a set which already defines a familiar object. Certainly, training in the interpretation of pictures will aid new literates in understanding. However, to exclude pictures in literacy materials for new literates defies the creative potential of visual perception.

Summary

Espe (1990) sums up the research in the following statement: “Picture perception is fast, and direct, but psychologically projective” (p. 26). The research clearly indicates that pre-literate people, whether children or adult, Western or non-Western, can understand pictures that are culturally relevant. Where difficulties exist, linguistic misunderstandings of test questions, and poorly designed or culturally irrelevant pictures are at fault. Furthermore, with exposure and coaching, picture perception increases. The answer to the second question, “Are pictures understood?” is yes, when the pictures represent familiar real-world visual perceptions.

What Types of Pictures are Most Easily Perceived by Preliterate People?

Preparation of literature for the teaching of reading, however, requires a more refined answer to the question of picture perception. As was suggested in the foregoing research, not all pictures are created equal. Are certain types of pictures more amenable to comprehension than others? Several picture research studies have focused on the topic of ease of perception when presented with various styles of art. These studies will be presented in chronological order.

Research on types of pictures most easily perceived by pre-literate people. Gibson (1969) discusses two studies conducted during the late fifties and early sixties to
determine the speed at which discriminatory judgments could be made when viewing an object in several modes of presentation. Although these studies tested the ability of literate people, they are significant in that the findings are critical for the development of illustrations that will be quickly perceived. Both studies reveal that when distinctive features are enhanced, perception is augmented.

In the first study, Ryan and Schwartz displayed pictures of an object in four manners of representation – photographs, shaded drawings, line drawings, and cartoons. In the test, the subjects were to determine the object’s relative position. Figure 13 below is an example of a test picture in which the subject was to specify finger position.

![Figure 13. Sample Picture from Ryan and Schwartz's (1956) Picture Perception Study (Gibson, 1969, p. 103).](image)

An interesting result of the study was the discovery that drawings done in cartoon form were perceived most quickly. Photographs and shaded drawings were both discerned
equally after cartoons. Outline drawings caused the most difficulty (Gibson, 1969, pp. 102-103).

In a similar study, Fraisse and Elkin used real objects together with photographs, outline drawings, and a drawing which accented essential features of the objects. Again, these accented drawings were most quickly perceived followed by the real object, then the photograph, and lastly, the outline drawing. “The superiority of the accented [and cartoon] drawing over the photograph and object is...an important finding” (Gibson, 1969, pp. 103-104).

In 1973, UNESCO conducted a similar study in Zambia. Seven motifs were prepared in four styles – line drawing, silhouette, photographic block-out, and photograph. (See Appendix C on p. 342). The results of the UNESCO (1973) study clearly indicated that the motif depicted in a block-out photograph was the most quickly identified, followed by the full photograph (see Figure 14 below). Silhouettes and line drawings did not rate favorably.

<table>
<thead>
<tr>
<th>Picture motif</th>
<th>Line drawing</th>
<th>Silhouette</th>
<th>Block-out</th>
<th>Photograph</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. House with woman</td>
<td>3</td>
<td>6</td>
<td>30</td>
<td>21</td>
</tr>
<tr>
<td>2. Kettle on fireplace</td>
<td>2</td>
<td>6</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td>3. Cooking pot on burner</td>
<td>2</td>
<td>5</td>
<td>39</td>
<td>15</td>
</tr>
<tr>
<td>4. Walking lion</td>
<td>1</td>
<td>3</td>
<td>37</td>
<td>15</td>
</tr>
<tr>
<td>5. Man drinking beer</td>
<td>0</td>
<td>7</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>6. Woman cooking nsima</td>
<td>4</td>
<td>3</td>
<td>35</td>
<td>19</td>
</tr>
<tr>
<td>7. Woman – bucket on head</td>
<td>3</td>
<td>0</td>
<td>36</td>
<td>22</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>15</td>
<td>30</td>
<td>230</td>
<td>128</td>
</tr>
</tbody>
</table>

Figure 14. Results of Picture Perception Study by UNESCO in Zambia. (Practical Guide to Functional Literacy, 1973, p. 120).
In 1976, a paper entitled *The Search for Information in Pictures* was presented at the spring SouthWestern Regional Meeting of the Society for Research and Child Development. Though summarizing a study conducted in the United States, this report adds another dimension to the ease of picture perception. Arnold, Incobbo and Brooks (1976) tested 40 fifth grade students to determine picture verification according to relational presuppositions. The task of identifying a picture corresponding to the phrase, “a horse jumping over a fence,” was an easier task than identifying a picture corresponding to the phrase, “a horse jumping over an elephant” (p. 3). Their conclusion that “general cognitive functioning affects the ability to process visual information” (p. 7) lends credence to other research (Gudschinsky, 1973; Murphy & Sheffler, 1983) which suggests that in order to be effectively discerned, pictures must be culturally relevant.

Cook (1977) sampled 423 people from 12 language areas in Papua New Guinea to determine what type of pictures communicated most effectively with people having little or no exposure to literacy. He presented several art styles – stick figures, outline figures, detailed black and white drawings, line drawings with color wash, and photographs – depicting the same sequence of events (see Appendix D on page 343). According to his findings, Cook (1981) determined that realistic detailed black-and-white line drawings were most effective in communicating with preliterate people.

From Cook’s perspective “the most important conclusion from these findings was that art style and content *do* make a difference in picture understanding, but only after one considers the subjects’ environment, sociological background, personal interests, and needs” (Cook, 1981, pp. 77-78). He concludes that “picture communication is a
complicated phenomenon. Picture content has a significant effect upon the success of picture communication. Art styles and degrees of ‘realism’ have less effect than content” (p. 421). Pictures would be most successful, then, if they are “interesting within the local culture” (p. 412). For instance, a series of books picturing canoe construction and fishing would be inappropriate for Bedoins living in North Africa (p. 79). An emergent literacy program would benefit from taking these factors into consideration.

In 1991, Dawson studied picture perception among the Bush Negro and the Creole of Suriname as part of a larger research project on aesthetic preferences in literacy materials. The significant factor for the ease of picture perception in Dawson’s report is the discovery that “illustrations that seem confusing to ‘us’ will probably seem confusing to the Bush Negro and the Creole as well” (Dawson, 1991, p. 160). Similar to the results discovered by UNESCO (1973) and Cook (1981) the amount of detail in pictures is an important factor in picture communication. Too little detail will cause failure in recognition; too much detail will cause confusion.

The last study to be considered broadens the topic of picture perception to include a holistic perception of the picture from a personal perspective. Pettersson (1992) found that because people are uniquely individual, they will always interpret pictures in personally meaningful ways (p. 160). Once pictures are understood, the mature viewer interprets the picture as part of a larger scene. Because a picture represents a moment of time within a restrictive frame, there is always something going on before, after, and around the picture. When asked to draw pictures to depict these prepositions in relation
to the original picture, each person drew the events and circumstances surrounding the picture from a unique perspective (see Figures 15a and 15b below).

<table>
<thead>
<tr>
<th>Original Picture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rain and a Flash of Lightning</td>
</tr>
<tr>
<td>Rain</td>
</tr>
<tr>
<td>The Sun is Seen to the Right of the Cloud</td>
</tr>
<tr>
<td>The Sun and Sunshine</td>
</tr>
</tbody>
</table>

Figure 15a. Sample Pictures from Pettersson's Study (Pettersson, 1992, pp. 158-159). Possibilities for "After."

Figure 15b. Sample Pictures from Pettersson's Study of Personal Holistic Picture Perception (Pettersson, 1992, pp. 158-159). Possibilities for "Around."
When applied to emergent literacy programs, this evidence indicates the necessity for the pictures to trigger a broadened view of the event depicted in the illustration. Unless the viewer can connect the picture with stored personal experiences and knowledge, the picture will remain frozen, framed, and meaningless. Culturally relevant pictures are crucial.

Discussion of research on types of pictures most easily perceived. The literature available concerning the type of pictures that are most easily understood is limited in scope. Black and white pictures dominate the research. No studies were found in which high quality colored photographs were tested along with other styles of art. Hagen and Jones (1978) lament the lack: “Unfortunately, despite the many years of existence of colored film – and, before film, paint and crayons – colored pictures are very seldom used in the work on cross-cultural picture perception” (p. 174).

A possible reason for the lack can be found in a statement by Deregowski, cited by Hagen and Jones (1976):

I shall not concern myself with pictures...which approximate to reality so closely as to be mistaken for it, but with pictures that depict reality showing sufficient clarity to be readily recognizable in one culture and yet present difficulties in another, since only such pictures can tell us what happens when we see a picture for the first time. (p. 174)

Perhaps Segall, Campbell, and Herskovit’s (1966) earlier conclusion “that the experience of anthropologists shows that motion pictures are almost universally perceived without trouble and that colored prints are also” (as cited in Hagen & Jones, 1978, p. 174) precluded the use of colored photographs in the subsequent research. Although these statements by prominent researchers in the field of cross-cultural picture perception are
not based on systematic studies, but on anecdotal records, it is likely that, if tested, quality colored photographs would be the most easily perceived.

Cook’s (1981) findings, that realistic detailed black-and-white line drawings were most effective in communicating with preliterate people, contradict the 1973 UNESCO test in Zambia that favored the block-out photograph. It is significant to note, however, that unlike the UNESCO study, Cook’s study did not use a block-out version of a photograph (which would have eliminated extraneous detail); and UNESCO’s study did not use detailed line drawings as Cook’s did. No test using detailed black and white drawings, block-out photographs (or photographs with the center of interest only in focus), colored photographs, and cartoons was found in the literature.

**Summary**

Given the limitations of the current research as discussed above, several factors concerning the type of picture most quickly perceived do emerge: 1) Culturally relevant pictures are understood; 2) The ease of picture perception depends on cultural, educational, and personal factors; 3) Pictures which have sufficient detail are more quickly understood; 4) Pictures with extraneous detail are difficult to perceive; and 5) cartoons or accented drawings are quickly discerned.

According to anecdotal evidence and comments by various writers cited by Hagen and Jones (1978), colored photographs hold promise for being the most easily perceived picture. The fact remains, however, that pictures of all types, when they are culturally appropriate, can be perceived by preliterate peoples with minimal exposure.
Perception of even minimal line drawings is sufficient, while perception of pictures which mirror reality is unquestioned.

**What Pictures Should be Used?**

It has now been determined that pictures are necessary and that culturally appropriate pictures are understood. The foundation for including pictures in emergent literacy programs has been established. The final question related to picture selection, "What pictures should be used?" can now be addressed.

With the question of picture perception ability answered, the focus of discussion can turn, as the research in the eighties did, to the subject of suitability and preference. Whatever form of art is selected, researchers and authors unanimously call for culturally appropriate pictures that reflect the life-style, values, and aesthetics of the target group, in literacy materials (Deregowski, 1980; Duncan, 1977; Giltrow, 1977; Espe, 1990; Fugelsang, 1982; Gudschinsky, 1973; Johnson, 1991; Kennedy, 1974; Haaland, 1984). Fugelsang, as cited by Johnson (1991), argues that "pictures are conventions conditioned by the cultures from which they emerge. They are not a cross-cultural universal language independent of people's experience" (p. 28).

Unfortunately, reflection upon the research studies of picture perception in non-Western cultures reveals that all the pictures used were introduced by foreign artists. Although Cook (1981) used a national art editor, even his drawings were done by an Australian artist who had spent time in Papua New Guinea, but was currently working in the Philippines.
The Value of Using Local Art in Literacy Materials

In 1973, Sara Gudschinsky made a salient observation that deeply impacts the question under consideration and that should have been honored long ago:

An emphasis on teaching people to read the kind of pictures we choose to draw has obscured the necessity for anthropological investigation into the kind of art that the people themselves already use. We overlooked the possibility that in cultures in which there is already a highly developed art, the art of the primers should be the art of the people. If we did use the art of the people in our material, there would be almost no need at all to teach them to read pictures in order to learn to read words. (p. 61)

Furthermore, if illustrations for literacy materials were produced by the people themselves, all the potential problems regarding the violation of values and misrepresentation of culture would disappear.

The reticence of literacy workers among traditional people to use local artwork could stem from ethnocentric bias (Murphy & Sheffler, 1983; Read, 1951; Stout, 1971). Europeans have inherited their cultural concept of ideal beauty from the classical art of Greece and Rome. According to Read (1951):

Perhaps as an ideal it is as good as any other; but we ought to realize that it is only one of several possible ideals...We try, often enough in vain, to force this one word ‘beauty’ into the service of all these ideals as expressed in art. A Greek Aphrodite, a Byzantine Madonna and a savage idol from New Guinea or the Ivory Coast cannot one and all belong to this classical concept of beauty...Yet, whether beautiful or ugly [according to the European ideal], all these objects may be legitimately described as works of art. (pp. 22-23)

Primitive art “may express an equal or even a finer instinct for form” (Read, 1951, p. 24) than some art forms of Western civilization.

A second reason for negative ethnocentric assessment of the artwork of traditional societies could be a result of both “civilized” and “primitive” man misjudging the
aesthetic sensibilities of the other. Thompson (1971) reports that a Til weaver of Northern Nigeria gives his best piece to his mother-in-law; his worst piece he sells to unsuspecting foreigners who apparently do not know the difference. The great brass castors of Abomey in the 1930’s, likewise, reserved their coarser works for Westerners; the finer work was sold to local patrons (p. 376). Westerners, in similar fashion, lock their masterpieces in museums, far from the access of other cultures.

If producers of picture books, as Cianciolo (1970) urges, respect and understand the audience (p.7), then the art forms of that audience must also be respected. Because “we are culture bound to consider certain things as visually aesthetic which others do not” (Murphy & Sheffler, 1983, p. 1), concerted effort must be given to affirmation of local art (Machin, 1981, p. 3). Attentive consideration of the community purpose and value placed on art forms could alter ethnocentric attitudes and, instead, engender appreciation (Hartt, 1985, p. 14).

Aesthetics in art are culturally determined. Beginning in the late 1800’s, according to Chipp (1971), teachers and writers were beginning to “stress the role of aesthetic pleasure in primitive cultures” (p. 146). Numerous authors (Chipp, 1971; Muensterberger, 1971; Read, 1951) contend that visual aesthetics is the driving force behind the creation of works of art in every society, including traditional ones. Read (1951) states:

The instinct that leads us to put unnecessary buttons on our clothes, to match our socks and ties or hats and coats, that makes us put the clock in the middle of the mantelpiece and the parsley round the cold mutton, is the primitive and uneducated stirrings of the instinct that makes the artist arrange his [motifs]...in a pattern. (p. 32)
One author, Robert H. Lowie, cited by Chipp (1971), studied the art of American Indians. He was convinced that the aesthetic impulse is "one of the irreducible components of the human mind, as a potent agency from the very beginnings of human existence" (p. 147).

The universal desire to create aesthetically pleasing forms finds expression in diverse manifestations throughout the world. Each culture, according to Dewey (1934), possesses its own "collective individuality" (p. 330) and produces a "manifestation, a record and celebration of the life" (p. 326) of the community. A particular artistic creation "is largely an expression of the conglomerate of forces in which the particular character of a population projects itself" (Muensterberger, 1971, p. 10).

Three studies, published in a volume entitled *Art and Aesthetics in Primitive Societies*, highlight the fact that the unique characteristics of a culture can influence choice in artistic expression. Each study focuses on a specific aspect of culture as a determining factor in the art of a society.

In the first study, Fischer (1971) used data gathered by two researchers, Herbert Barry, III, and G. P. Murdock, to determine "the relationship of art style to social organization" (p. 171-173) in 29 societies. All four of the proposed hypotheses were verified by the data. It was discovered that the design patterns in the art of egalitarian societies are characterized by repetition of simple elements, generous amounts of empty space, and symmetry. The design patterns of hierarchical societies integrate several unlike elements, had little empty space, and were asymmetrical. Figures without enclosures are used by egalitarian societies whereas enclosed figures characterize hierarchical societies (pp. 174-175).
In the second study, Barry (1971) carried out a test in which he examined the art work of 30 preliterate societies to ascertain whether severity of socialization impacted artistic forms. He concluded that "in the majority of cultures with complex art styles...the typical individual learns self-reliant behavior to a high degree" (p. 70).

Even house structures were found to influence preferences in art style in the third study. Robbins (1971) studied data gathered in a previous research effort by Barry and Fischer. He hypothesized that ethnic groups living in rectangular houses would create art in predominately straight lines. Conversely, those living in round houses were predicted to use curvilinear forms. The results of the study, however, showed the exact opposite. Traditional Numanggang houses are round, however, their art designs are geometric (see Appendix E on page 348). Based on his findings, Robbins proposes that if an art object is to "be cognitively preferred and aesthetically satisfying, it should contain certain 'properties' different from those normally experienced" (p. 333).

These three studies point to internalized preferences in art form due to social organization, socialization, and environment. A literacy worker from another culture would be remiss in applying personal aesthetic values, rather than local preference, in the creation of pictures for literacy materials.

Preliterate societies are themselves capable of culturally perceived aesthetic evaluation. Thompson (1971), working in Africa among the Yoruba states:

Artistic judgments may be made by virtually every member of a society favoring art, and these,...show some consistency wherever made. If this is so, and it is also true that Africa probably has no society that does not produce some form of art, then the same land mass conceals an extremely rich source of aesthetic criticism. (p. 375)
His experience among the Yoruba proved his assertion. He reports that art critics among them “often speak fluently and convincingly of the delicacy of a line or the roundness of a mass, attesting, again and again, a refined ability to identify swiftly the aesthetic components of form” (p. 375). Thompson quotes a passage from the writings of Tutuola, a Yoruba novelist, in which a beautiful woman is described. “She is not too tall and not too short; she is not too black and not yellow” (p. 379) – certainly a different standard of beauty than that lauded by the Greeks and the Romans! In conclusion, Thompson (1971) states that European standards of artistic criticism, if applied to Yoruba art, would fail miserably:

The visitor from art circles in the Western world, conditioned by a visual culture of abstract expression and optical shock...would hardly suspect that the very elements which he found laudable in African sculpture might be those considered hideous by traditional Yoruba. Nor would he realize that the notion of ugliness in Yoruba art is one way of proving the positive aesthetic...A broken rule implies the rule intact. (p. 279)

The islanders of the Eastern Solomons, like the Yoruba, employ internalized culture-specific artistic values in their assessment of wood carvings. By local criteria, substandard carvings are unacceptably formed, the iconography inappropriate or deviant, and the compositions are not properly balanced (Robinson & Davenport, 1971, p. 401).

Whether because of variant perception, or because of cultural preference, preliterate people have shown a decided preference for certain pictorial representations of real objects and for particular styles of art. Aesthetic values as reflected in local art must be honored in a literacy program.
Pictures are culturally interpreted. In addition to locally ascribed determinants of what constitutes good art, visual images are seen through a cultural grid. The Journal of Social Psychology printed an article in 1933 entitled “A Racial Difference in Perception” by R. H. Thouless. Studying the difference in perception between students from Great Britain and students from India, Thouless states that the Indians:

see objects in a manner much further from the principles of perspective than do the majority of Europeans and also...tend not to see shadows. The difference in question is in the extent to which they are subject to what has been called ‘the tendency to constancy’ or the tendency to ‘phenomenal regression to the real characters of objects.’ (pp. 330-332)

The Indians were more highly influenced by the perception of actual objects than by their appearance. For example, receding parallel lines tend to appear parallel (see Figure 16 on page 117) and white paper appears to retain its “whiteness” even when the lighting changes. This difference in perception “is exactly the difference which would lead to the observed differences in drawing technique between Western and Oriental artists. It seems highly probable that the difference in drawing technique is a result of the difference in perception” (Thouless, 1933, p. 336).

The elements of proportion, size, and view are culturally perceived. An ethnic group in Brazil insisted certain features of a jaguar be exaggerated and other features minimized. Their contact with this large cat in the jungle at close range had influenced their perception of its proportions. Certain societies may desire eyes in a portrait to be enlarged; other cultures emphasize noses or muscles (Gudschinsky, 1973, pp. 104-105).

Not only may certain features of an object be prominent, but functional portions of the picture may dominate (see the Numanggang picture of the birds and grasshopper
Figure 16. Early Indian Picture – A Racial Difference in Perception, (Thouless, 1933, p. 331).

on page 306). The status of a high ranking government official or chief might require a comparatively exaggerated size to others in the picture (Murphy & Sheffler, 1983; Duncan, 1977). Movement, such as a bull leaping, may require elongation of the body (Read, 1951, p. 72). If any of these elements were to be changed to reflect foreign artistic ideals and conventions, not only would the message be altered, but the picture might lose its aesthetic appeal. Furthermore, a foreign editor, in an attempt to beautify a local picture
“may distort the very features which, to the people of another culture, are most beautiful” (Gudschinsky, 1973, p. 105).

Local artists may also prefer to depict an object from a certain perspective. Artists in a workshop in Brazil, directed by Murphy & Sheffler (1983), chose to draw animals from a head-on perspective:

We forget that the head-on (coming) perspective or tail-on (going) perspective is probably the most evocative for the hunter! It is, therefore, likely to be the most easily recognized illustration for the majority of the readers. We have noted that women trainees usually draw the animal in a prone position, that is, dead – since this is the way the women most frequently encounter the objective of the hunt. (p. 2)

In addition to proportion, size, and view, color is also culturally defined and certain colors preferred. Because many books produced for emergent literacy programs in traditional societies are in black and white, color is often overlooked as an element that must be considered. Early studies of choice between black and white pictures or color pictures (Mellinger, 1932) reveal a decided preference for color. Cook (1981) reports that Papua New Guinean “subjects preferred color over every other art style” (p. 81) and Duncan (1977) states, “Given a choice, our readers in Africa would prefer color” (p. 19).

The indiscriminate or selected use of color by a foreign artist may, however, create unexpected emotional responses because color is often laden with meaning. Cunningham (1992) writes that the entire system of Korean folk art, for example is intertwined with the religious beliefs of shamanism, particular colors carrying certain messages (p. 454). Gold, applied to monumental human statues indicated equality with the rest of the universe in the Confucian world view (p. 449). Hubbard (1989) discusses a study of the color preference of Jews in Jerusalem in 1941. Yellow was extremely
unpleasant due to the association with the yellow patch they were forced to wear in Nazi Germany. Blue, the color of a popular uniform in Palestine symbolized hopes for revival and a new society. The same study conducted in Israel in 1960 produced significantly different results. Yellow was greatly preferred as it was associated with the reviving desert. Blue was no longer the color of hope (pp. 132-133).

A similar study cited by Johnson (1991), conducted at the Institute Teknologi Mara, supports the fact that emotive values of color are culture-specific, even for different races living within one society. The chart in Figure 17 below displays the results of this study: Literacy materials printed with covers in black for the Indians or in blue for the Chinese might fail to motivate them to read. On the other hand, yellow covers on personal stories authored by the Malays might communicate an improper message about material content.

<table>
<thead>
<tr>
<th></th>
<th>Malays</th>
<th>Indians</th>
<th>Chinese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>courage</td>
<td>evil</td>
<td>death</td>
</tr>
<tr>
<td>White</td>
<td>peace, purity</td>
<td>peace, purity</td>
<td>peace, purity</td>
</tr>
<tr>
<td>Blue</td>
<td>beauty, liberty</td>
<td>grief</td>
<td>grief</td>
</tr>
<tr>
<td>Red</td>
<td>valor, might</td>
<td>aesthetically</td>
<td>prosperity,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>appealing</td>
<td>happiness</td>
</tr>
<tr>
<td>Yellow</td>
<td>royalty</td>
<td>appeases the</td>
<td>joy, wealth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>gods</td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td>aesthetically</td>
<td>very</td>
<td>aesthetically</td>
</tr>
<tr>
<td></td>
<td>appealing</td>
<td>aesthetically</td>
<td>appealing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>appealing</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 17. Emotive Values of Colors for Malays, Indians, and Chinese (Johnson, 1991, p. 20).*

Certain colors may be paramount with certain qualities. The Yoruba author’s definition of a beautiful woman was one who was “not too black and not yellow”
(Thompson, 1971, p. 379). For an American artist, the accepted color of water may be blue; to a preliterate artistic thinker in the tropics, the water may be green. Furthermore, an orange moon may mean a harvest moon to one artist and a storm warning to another (Hubbard, 1989).

For whatever reason – emotional, historical, or cultural – preliterate people do have decided color preferences. Even ethnic groups of the same country will exhibit exclusive local taste. In Suriname, when asked to select preferred colors for book covers, the Bush Negro chose intense, bright colors with a shiny surface; the Creole wanted to use dark intense colors also with shiny surfaces; and the Hindustani preferred red and orange leatherette covers. The Bush Negro had a distinctive dislike for certain colors as well. Aukanner Bush Negroes had an aversion to orange, orange-brown, and yellow-brown whereas the Saramaccan Bush Negro could not tolerate yellow-browns and pink (Dawson, 1991).

Bornstein’s (1975) research into color perception may shed light on one of the reasons for color preference among different ethnic groups. He states, “Recent psychophysical evidence suggests that certain cultures may vary from a uniform pattern of categorization of basic hues because certain peoples may actually perceive colors differently and therefore categorize them differently” (Bornstein, 1975, p. 774). The reason for this, he says, is the amount of color pigmentation in the eye which causes light to be perceived differently:

Ocular preprocessing of radiation by visual pigments is a biometeorological adaptation to ultraviolet components of sunlight and/or dietary by-product. Although such pigments protect the eye and promote acuity, they simultaneously limit color vision by reducing sensitivity in the blue and by causing visual
confusion among short visible wavelengths. There is thus a tradeoff between qualitative (color) and quantitative (detail) aspects of vision. (p. 774)

Although, according to Brown (1991), there is substantial evidence in the later research that societies actually classify colors in a near universal order, the fact remains that these societies select areas of the color spectrum to endow with lexical categories. The Numanggang of Papua New Guinea, for example, group dark blue, dark green, and black in one lexical category – gouyeening. Menanti Sianipar (personal communication, July 30, 1998), a speaker of Bahasa Indonesia, explained the lexical classification of major colors as including red, green, yellow, and blue. Each of these major colors can be old (dark) or young (light). The minor colors – gray, brown, and orange – cannot be modified as young or old. Black and white are in a separate class.

The result of unique classifications, whether for reasons of perception or choice, could be decided color preferences. According to Thompson (1971), a young Yoruba “spoke with the full authority of his ancestors” when he articulately described blue as his favorite color. “It is between red and black. It is not too conspicuous as red and it is not so dark as black. It is cool and bright to see” (p. 379).

If a literacy worker or publisher insists that the best choices for illustrations be bright, bold colors for motivational impact or aesthetic value, the reaction of the target group might be apathy or displeasure instead (Maccann, 1962, p. 6). The color preferences of the people must be honored.

Assumptions concerning stylistic preferences in illustrations could be as counterproductive to the goals of the literacy program as inappropriate color choices. *Style*, like conventions and color, is culturally and individually ascribed with aesthetic
value. Furthermore, within a particular culture, the art of one period in history, so revered by those who produced it, may be disliked by another generation. Even within a particular time period, the works of an innovative artist such as Monet or Rembrandt may be questioned by the community.

Health organizations have contributed much to the dialogue on culturally appropriate pictures and picture preference (Haaland, 1984; Johnson, 1991). Working in cross-cultural situations, these organizations are particularly concerned with visual literacy in which pictures, rather than print, must carry the weight of communicating information. When attempting to create printed material on oral contraceptives, it was discovered that Mexican women preferred the use of photographs in sequential order; women in the Philippines wanted a comic book design; and Indonesian women gravitated to line drawings (see Figures 18a-c on pages 123-124).

In addition to the Indonesian women's preference for line drawings, only one other available study, that of the government's Department of Information Services and Extension Services in Papua New Guinea in 1971, mentioned by Cook (1981) indicates a preference for this particular style. The reference, however, is brief: “Adults preferred line drawings to photographs, and both of these to a ‘single line drawing’ – stick figures with some embellishment” (p. 109). The samples are not provided and the data, therefore, is difficult to evaluate.

The participants in Cook's (1978) study chose the color wash drawings first followed by a second choice of detailed black-and-white line drawings and photographs (p. 67). The UNESCO (1973) study revealed a decided preference for photographs over
Figure 18a. Picture Preference for Mexican Women (Johnson, 1991, p.96).
Figure 18b. Picture Preference for Filipina Women (Johnson, 1991, p. 97).

Figure 18c. Picture Preference for Indonesian Women (Johnson, 1991, p. 98).
line drawings. The Bush Negro consistently chose a photograph of two Bush Negro women as opposed to drawings based on a tracing of the photograph for the cover of a book (Dawson, 1991, p. 4). Henoma Topo’ogo (personal communication, May, 1996) from the Morobe Province in Papua New Guinea requested that short biographical and autobiographical stories with photographs be produced in local languages. He insisted that the people would prefer photographs above other styles of illustration. John Sievert, the Lutheran missionary doing illustration research in the same area, discovered that “photographs have a higher ‘prestige value’” (Cook, 1981, p. 103).

One other art style in literacy materials bears mention. In the Middle Ages monks painstakingly created elaborate ornamental letters and decorative features “executed in colors, gold and occasionally silver” for the purpose of causing “the volume so treated to be resplendent, suggesting its value as a means of recording and communicating ideas” (Robb, 1959, p. 242). Should new literates desire to embellish the pages of their books, they should be encouraged to do so. Perhaps local design patterns could be used as borders.

Discussion of research on picture preference. It is unfortunate that no research could be found in which all three parameters – perception, preference, and cultural authenticity – were studied concurrently. Nor were studies found that tested local art, introduced art, and black and white as well as color photography simultaneously on any of these parameters.

The available literature offers studies which test the preferences of a very limited range of styles – line drawings in varying degrees of realism, detail and caricature, and
black and white photographs. Color wash added to the detailed line drawings in Cook's (1978) study was the only other variant. Furthermore, as previously stated, the art styles were always introduced art rather than local art.

Because of the number of subjects from different preliterate and semi-literate societies who have indicated a preference for photographs in several studies, and because of the ease with which simple, uncluttered, black and white photographs and colored photographs are perceived, it is strange that the preponderance of literacy materials have been produced using black and white line drawings. (A perusal of UNESCO and SIL materials will support this statement). Perhaps literacy workers should reconsider their fixation on line drawings and give photography – a form of art that promises inerrancy in cultural representations – more than an honorable mention.

Since color illustrations as well as black and white photographs rated highly for preference among preliterates, color photography might prove highly successful. Local photographers could create the illustrations for their literacy materials. For authors who do not feel comfortable as artists, but wish to illustrate their own books, photography might be the answer. The cost of color reproduction has historically been prohibitive and is likely the reason line drawings, which are easily reproduced, have predominated. With the introduction of digital cameras and color printers, however, the time has come to reconsider the repertoire of illustrations in emergent literacy programs. If picture preference is joined with picture perception and culturally appropriate representation, color photography, taken by local photographers, could easily be the answer for illustrations in future literacy materials.
Pictures Should be Locally Created or Selected

If local judgments regarding conventions, color, and style preferences are to be honored, the foreign literacy worker must place the task of creating illustrations in the hands of the community. The dangers inherent in disregarding local decisions in this area can, unfortunately, result in demeaning the culture itself. Not only are ethnic art forms often ignored, but when drawings of a particular society are created by someone from outside of that society, a number of debasing representations can result. Even unintentionally, a visiting artist can portray the people in stereotypical or oversimplified fashion rather than as members of a highly complex society. Unique features of dress, shelter, etc., which separate them from other local ethnic groups may be overlooked. Finally, ethnocentric bias may lead to omissions or distortions (Slapin, Steale, & Gonzales, 1992).

The story is told of a foreign artist who received a request to draw a picture for a minority ethnic group of a man carrying a stalk of bananas. Before he could draw the picture, however, he needed to know how bananas were carried – on the head, in a string bag, over the shoulder, on a pole? Should he color the bananas green, yellow, or red? How was the man to be dressed? What should be the setting of the picture? At what angle should he draw the man? What expression should he portray on the man’s face? Fortunately, he realized his limitations (Gudschinsky, 1973, pp.105-106).

Taking only one of the questions asked by the artist above into consideration, Murphy & Sheffler (1983) elaborate on the difficulty of drawing without knowledge of cultural cues:
How would emotions, such as sadness or happiness, be drawn? This would depend upon the cultural gestures to express these things. Sadness might be portrayed more by a wailing posture than by tears on the cheeks, for instance. Happiness may not be mirrored in a facial expression. The grin ‘from ear to ear’ is an American way to express it...For many Brazilian Indian cultures, a smile would merely indicate embarrassment, or evil intentions, that is, a malicious laugh. (p. 5)

Another anecdotal note tells of a situation where a visiting artist made every effort to study the Mazatec culture and accurately depict local life. One picture, however, caused laughter whenever it was viewed. Unknowingly, the artist had drawn the tie strings of the trousers of the man in the picture in the direction used to dress a corpse for burial! (Gudschinsky, 1973, p. 2).

Even if the misinterpretation of culture cues in the picture are not as serious as in the foregoing illustration, meaning can be skewed. Figures 19a and 19b on page 129 demonstrate possible assessments of illustrations that vary according to cultural perspective. In Figure 19a, the woman in the center of the picture could be perceived as sitting under a window, or perhaps carrying a can of kerosene on her head. The group activity in Figure 19b could be viewed as a fight or possibly a dance depending on one’s personal experiences within society.

If the art work for book illustrations were created by the people themselves, all the dangers inherent in foreign decisions concerning aesthetics and cultural accuracy would disappear. Most importantly, the books would belong to them as an expression of culturally meaningful communication (Dublin, 1972; Rezabek & Noonan-Moore, 1992)

As Machin (1981) so aptly states:

We will probably discover that, just as their own language speaks more clearly to them than our language or the way we use their language, their own pictures also
Figure 19a. Cultural Influence on Picture Interpretation (Deregowski, 1980, p. 116).

Figure 19b. Cultural Influence on Picture Interpretation (Kennedy, 1974, p. 70).
speak more clearly to them than ours do. Encouraging indigenous people to make – and improve (according to their own standards) their own illustrations, or just to make the necessary decisions about art in their books, and to show them how to procure art work from other sources will help make literature a real part of their own culture. It will no longer be just a circus novelty that will go away when the foreigner folds his tent and leaves. (pp. 3-4)

The question has been raised concerning the validity of using some introduced or foreign pictures if selected by local artists. Davis (1991) goes so far as to say:

All examples of Western illustrations in the literacy workers’ possession should be hidden or thrown away. Our insistence that materials we publish should ‘look good’ might very easily take precedence over what the people want...Even if the people are already familiar with art forms and illustration from outside their culture, it should be downplayed. Anything they do on their own is more valuable than anything that can be brought in from the outside. (p. 8)

However, to restrict the illustrations to local art when the people themselves request other forms would be just as paternalistic as to require that all art work be introduced. Certainly, the community-generated model for the literacy program (discussed in the next section) would not exclude the importation of art, but the decision must belong to the people, and their local culture and art forms must be highly regarded, even given deference. It must be remembered that, in the global community, authors and illustrators have access to a wide variety of media and cross cultural material. Schwarcz (1982) comments on the global proliferation and sharing of art for illustrated books:

It is meta-national in the sense that the illustration...is inspired and guided by trends issuing from academies, galleries, and schools of art linking New York to Paris to Prague to Tokyo to Rio de Janeiro. There exist regional distinctions characterizing nations and civilizations...but the influence of the great art centers is considerable...Children everywhere are face to face with books originating in different countries...The illustrated book is to be studied as an emerging branch of art developing on a worldwide scale. (p. 6)
The fact that many preliterate people groups live in hidden corners of the world is not sufficient cause for them to be precluded from the right of access to what is available to new readers in more developed areas. They should be afforded the same privilege as others who are entering the world community of literates. The critical element remains: the people must have control of the production of their illustrations as well as their stories. If this control leads them to chose art from other countries and ethnic groups as well as their own, then the literacy worker must step aside and relinquish any preconceived ideals.

A recent article by Tarja Ikaheimonen (April, 1999) reveals that not only do newly literate people respond well to borrowed pictures, but also that colored pictures and colorful covers increase interest in printed material. Earlier attempts to encourage reading of short stories among the Mende people of the Sandaun Province of Papua New Guinea had failed to generate much interest. In an effort to promote the sale and reading of portions of Scripture written in the vernacular, Tarja used donated colored pictures from discarded Sunday School materials. She pasted a picture onto bright colorful covers for these small booklets. To her delight, sales increased dramatically. In reflection, she comments:

We discovered the brighter and more colorful the cover, the more appealing it was to the people....From our experience we can say that it is possible to make very inexpensive, attractive Scripture booklets in the village...Colored pictures can make a big difference in the acceptance of vernacular literature. (p. 14)

If interest in literature can be augmented simply through the use of colored drawings that are created by foreign artists and that represent a foreign culture, it is probable that a
serious focus on the use of indigenously generated, colored artwork and colored photography could revolutionize emergent literacy programs throughout the world.

Summary

The unanimous call in the research literature for the use of culturally appropriate pictures in literacy materials demands serious consideration. Preliterate people, like people everywhere, possess culturally defined aesthetic appreciation for art. They know what will arrest and hold their attention (Pitz, 1963). They know what is meaningful and culturally appropriate. The choice of illustrations for their literacy materials and books, therefore, should belong to them. Foreign artwork depicting their culture may confuse or offend. Perhaps most damaging of all, even a well-intentioned literacy worker can give the impression that art from other cultures is superior to local art.

Paternalism must bow to the aesthetic values of the target group. Deference given to local conventions of proportion, size, view and color will promote meaningful interpretation of the pictures. Indigenous selection of style will increase motivation to become fully engaged in reading. Ideally, creation of materials in a preliterate society by the people themselves will assure appropriate aesthetic presentation, support meaningful communication, and validate their culture.

Research concerning the production of pictures in literacy materials for newly literate societies demonstrates the following: 1) Illustrations are necessary for motivation and expanded meaning; 2) Pictures are understood by preliterate people and where there is lack, exposure will quickly enable them to “read” pictures; and 3) Pictures that reflect
the cultural sensitivities and aesthetic values of the target group should be created or
selected by the people for whom the materials are intended.
Culturally Sensitive Model: A Literacy Program Owned by the People

Three models for emergent literacy programs are currently in use: traditional programs, functional programs, and participatory programs. These three will be briefly presented followed by a proposed community-centered model in which the target community takes ownership of their program.

Traditional Literacy Programs

Traditional adult literacy programs are usually standardized, diffuse and non-intensive in character ([Functional literacy: Why and how, 1970, p. 9]). The purpose of such programs is to increase the level of literacy in relationship to the larger society. Often these programs are conducted in the national or dominant language and are systematized prior to beginning the program. If conducted in the vernacular, the focus of the program is still to produce literates able to read and write in a variety of contexts through the use of a standardized and proscribed program (see Figure 20 on page 135).

Of significant import to traditional literacy programs is the potential for the lack of participation. Many reasons for disinterest in literacy are discussed in the literature on adult literacy programs. Perhaps the most significant is the choice of material. Jennings (1997) suggests that literature in the curriculum must be based on readers’ interest:

Most projects have a fair idea of the information they wish to impart. However, when it is assumed that these subjects are automatically of interest to the new adult reader, the result is often the production of materials which are never used. (p. 27)

Motivation for reading and writing can only be sustained internally. If extrinsic motivation, such as pleasing the foreign literacy trainer, is the sole motivation for
A second model for the structuring of literacy programs differs in focus from standardized traditional programs. These functional literacy programs are:
distinct from so-called traditional literacy work in that it is no longer an isolated or distinct operation – let alone an end in itself ... [These programs] make... it possible to treat the illiterate as an individual in a group context, in relation to a given environment and with a view to development. (Functional literacy: Why and how, 1970, p. 9)

Literacy, in this model, is conceived of as a component of social and economic projects to improve the standard of living of the people. The Experimental World Literacy Program (EWLP), developed by UNESCO and cosponsored by the governments of developing countries (Wendell, 1997), initiated a world-wide program of functional literacy in the 1960’s and continues to support numerous projects in third world countries. Work is begun by means of surveys and discussions to determine the needs felt by the community. The literacy workers then devise a program of learning to read and write that speaks directly to those needs. The desired result is improved economics and community development (Functional literacy: Why and how, 1970) (see Figure 21 on page 137).

By their own assessment in 1976, UNESCO reported numerous problems with functional literacy programs, the major obstacles being the use of foreign languages. In traditional cultures in rural areas, the drop out rate was at times 95 percent! The deeper, more significant problem reported by the evaluators, however, was the sense of repression and inferiority felt by these minority groups. “Directors unwittingly provided indisputable and tangible proof to the learners that their local language could not serve for written communication and, therefore, was of no value” (Wendell, 1997, p. 9). Although UNESCO’s evaluation acknowledged the importance of vernacular literacy and cultural awareness, no suggestions were given for building such programs (Wendell,
As in the Traditional Model, the community receives information from the more educated rather than using its own wealth of knowledge to produce the very substance of the literacy program. Spaeth (1997) argues that simply providing literacy materials smacks of “relief rather than development” (p.2). Furthermore, to suppress the “rich literary resource” of indigenous languages and “import the foreign Western art, story form, and cultural identity is an insult to these groups who have managed to maintain the richness of their own heritage for multiple generations” (p. 3).

**Participatory Literacy Programs**

A third model is based on the idea of full participation of the learners. In this type of literacy program, the learners share a greater burden for the program on all levels.
Community members have a significant degree of control of the program and are consulted concerning the instructional and/or management processes. Learners cooperate fully and actively participate in the program established by the staff (Jurmo, 1989, p.18) (see Figure 22 below).

![DOMINANT CULTURE Diagram](image)

**Figure 22. A Participatory Literacy Program.**

As in the Traditional and the Functional Models, literacy trainers in Participatory programs arrive on site with knowledge to impart. Though local workers are trained and
play an important role in the program, they are the secondary members of the team. This model, however, is an improvement in that at least some members of the community are actively engaged. Because of the literacy worker’s high level of involvement in all phases, motivation for participation and subsequent longevity of the programs present particular difficulties.

**Community Generated Programs – Culturally Sensitive**

Based on an understanding of the subsystems of language and the valuable component of indigenously generated texts for learning to read, a proposed fourth model would be centered around the community – a framework embedded in cultural context. Rather than being rooted solely in economic incentives or desire to enter the dominant culture, this model takes into consideration the wealth of knowledge of the pre-literate and is generated and perpetuated by the learners themselves. In this model, knowledge is shared – the technical expertise of the literacy worker, and the cultural and linguistic knowledge of the community. The ultimate goal of the program is not prosperity or amalgamation into the national community, but simply to experience the joy of expression (Kang, Kuehn & Herrell, 1996; Stringer & Faracas, 1987; Wendell, 1997).

Figure 23 on page 140 displays a model representing this approach in which knowledge is shared rather than dispensed and the purpose of the program is generated from within the community itself.

The following statement in the *Council of Education Ministers Conference Report* (1991) in Papua New Guinea reveals the absolute necessity of a community owned literacy program:
Figure 23. A Community Generated Literacy Program.

People feel that all decision-making is out of their hands. Non-formal education and awareness activities at the community level are almost non-existent. There is a decreased...support for schools and teachers and a general lack of appreciation for public infrastructure...There is an increasing perception of the irrelevance of the education system to the way of life of the majority of the people. (p. 3).
In order for educational institutions to be relevant, indigenous people must be allowed to structure those institutions. If foreign forms, latent with unique values and strictures, are imported, the results will be counterproductive. Well-meaning workers may find themselves “with creative people who can no longer create, and would-be participators who become non-participant, and before long the cultural voids...[will] begin to be felt” (Tippet, 1992, p. D-117).

Street (1987) advocates an “ethnographic” approach to literacy work among preliterate and newly literate societies in which each society would be encouraged to interpret reading and writing through their own cultural grid. The community would then “become practiced in their own independent uses of literacy and...develop it for themselves rather than always practicing it passively under European control and supervision” (p. 29).

Unless the literacy program is owned by the people, its relevance will be compromised. “In literacy work...the programs and practices we assign to illiterate learners often are at variance with the learners’ cultural background and the values that govern their lives” (Newman & Beverstock, 1990, p. 3). Fingeret (1987) cautions against the prevalent practice of basing literacy work on traditional research rather than on ethnographic studies:

We continue to operate literacy programs on the basis of untested assumptions and the “tradition” of experience that has proven to be of limited success over the past 20-odd years. We are beginning to recognize that there are some very basic questions yet to be answered, such as “How do nonliterate adults approach the process of learning to read and write?”... “What is the relationship between cultural background and classroom learning?” Due to the constraints of quantitative paradigm, it has not been possible to view adult literacy students
more broadly as adults or to investigate issues such as the relationship between program factors, cultural background factors, and learning. (Fingeret, 1987, p.1)

In support of culturally sensitive programs, Newman & Beverstock (1990) join the growing number of advocates for replacing Western educational ideologies when embarking on a mission to eliminate world illiteracy:

Do we continue to be content with talking about the glories of literacy in professional jargon while dispensing literacy to our learners through restricted, artificial, contextually vapid materials that leave the new reader unsatisfied: or do we engage in dialogue with our learners, incorporate their interests into the program, and make their values the cultural norm of the reading and writing skills we are teaching? (p. 7)

For Freire and Macedo (1987), literacy should not be merely a functional literacy that initiates the illiterate into the dominant cultural group. To be literate is to reclaim the authorship of one’s life – a reclamation of one’s history and future. Freire envisioned the implementation of critical literacy theory in which the people’s voice becomes the context for learning to read. With ownership comes transformation of the community and of literacy itself. Reading and writing will become uniquely culture-bound. As Kulick and Stroud (1993) advocate:

Individuals in a newly literate society...actively and creatively apply literacy skills to suit their own purposes and needs...Literacy is shaped by a group’s social organization and cultural concerns in much more far-reacting and subtle ways than has formerly been appreciated. (p. 31)

Traditional, Functional, and Participatory Literacy Programs fail to offer the ownership of the program to the people themselves. Only indigenously generated literacy endeavors offer hope for perpetuity of the program when the foreign worker leaves. If people perceive reading and writing as an extension of their culture; if the program belongs to them; if literacy offers another option for meaningful language
communication, then motivation to become literate will be encouraged and maintained by the community (Jonduo, 1997; Veneo, 1996; Chlebowska, 1992).

Summary

The three models of literacy programs currently in use in preliterate societies are inadequate if the communities are to be motivated to learn to read and then to continue their journey into literacy. Both the Traditional Model and the Functional Model are expressions of a dominant culture’s desire to impose their knowledge and agenda on the learners. The target communities are perceived as needy rather than wealthy in local culture and oral tradition. Though the Participatory Model seeks to actively engage the local learners, the high profile of the literacy trainer prohibits ownership of the program by the community, and thus, the longevity of the program is questionable. Only in the proposed Community Generated Program does the visiting literacy worker become a member of the community, and as every other member, share personal knowledge with the group. Unlike the Traditional, Functional and Participatory Models, the Community Generated Program places both the creation and implementation of the program in the hands of the learners.
Conclusion

In order to address the needs of the Numanggang society in which the historical perception of literacy has been esoteric, and in which the connection between oral and written language has only recently been introduced, the literacy program will be built on the following principles:

1) What can be communicated orally can also be communicated in written form.

2) Meaning is at the heart of all authentic language communication, including language in its written form.

3) Written language is the rightful domain of all speakers of the language.

Strategies for implementing these principles are:

1) Creating occasions for the promotion of vernacular literacy.

2) Holding writer’s workshops with the purpose of creating indigenously authored and illustrated literature.

3) Building culturally sensitive programs that are owned by the people.

At the heart of the literacy program, locally produced and illustrated literature based on real life experiences of the authors, and historical narratives traditionally told orally, will create the avenue through which the connection is made between oral and written language. When the purpose of reading is understood as a transfer of meaning, just as in oral communication, the mystical quality of written language will fade. Every speaker – not just the spiritually endowed – will then be privy to another mode of communication. The “verandah stories” will assure that the program is created by the Numanggang, giving them a voice in the world community of literates.
Literacy workers in emergent literacy programs around the world must believe in local people to the extent that the very materials produced for the teaching of reading are birthed from the passions and creativity of the new readers themselves. Western constraints would be broken and the result would be new genre issuing from every corner of the globe enriching us all.
CHAPTER THREE: EVALUATION

Goals

The Numanggang language, mother tongue to approximately 2500 speakers of the Morobe Province in Papua New Guinea, was unwritten until the 1980's when an orthography was developed and initial literature published. Because of mission work by the Lutheran Church and provincial governmental educational support, the majority of the Numanggang have been exposed to print in Kate and Melanesian Pidgin. Now, with the possibility of establishing a vernacular literacy program, the adults who are semi-literate can be taught to transfer their minimal reading skills from Melanesian Pidgin to Numanggang. In order to accomplish this goal, research into the cultural and historical atmosphere of Numanggang society has provided the understanding needed to offer a model for a community generated literacy program based on indigenously authored and indigenously illustrated literature. The specific goals of the project are as follows:

1) Begin a program in the village of Tumun which is led by Numanggang instructors who are literate in the vernacular.

2) Expand the program, upon invitation, to other villages.

3) Encourage the ongoing production of literature for Veranda Story Notebooks through writers' workshops.

4) Offer the balanced literacy model using locally produced literature in expandable notebook form and a transfer primer in cartoon format to other literacy workers in preliterate and newly literate societies for use in adult programs.
Limitations

This project has been developed with a specific target group in mind – the Numanggang adults of Papua New Guinea who are semiliterate in Melanesian Pidgin. The program of literacy is built on a growing body of locally authored and illustrated literature together with a transfer primer from Melanesian Pidgin to Numanggang. The assessment packet has also been developed with the Numanggang adults in mind. The actual project, therefore, is limited to use by the Numanggang adults.

In a broader sense, however, the theoretical foundations upon which the project is built, and the structure of the project itself, could prove to be useful to others in similar circumstances. The cultural and historical background of the Numanggang is similar to many other ethnic groups in the Morobe and Madang Provinces and could prove helpful to literacy workers in these areas in the formation of a culturally sensitive understanding of the local perception of literacy. The necessity for aiding in the understanding of written language as an extension of oral language is true of preliterate societies throughout the world and must be addressed when creating a meaningful literacy program among them. The value of basing a program on indigenously authored and illustrated literature can be extended even to emergent literacy programs in literate societies. The project, therefore, though narrow in immediate focus, could be used as a resource in other programs, particularly in preliterate and newly literate societies.
APPENDIX A

A LITERACY PROGRAM
FOR THE NUMANGGANG
ADULTS
OF PAPUA NEW GUINEA

BASED ON
INDIGENOUSLY AUTHORED
AND
INDIGENOUSLY ILLUSTRATED
LITERATURE
Appendix A1

HISTORICAL, CULTURAL, EDUCATIONAL AND LINGUISTIC CONSIDERATIONS

A successful pedagogy and curriculum for the instruction of reading will take into consideration the historical, cultural, educational, and linguistic parameters of Numanggang society. Because the literacy program will be embedded within the context of their history, culture, and language it will be unique, just as the embodiment of any form of invention reflects its maker. Models of reading and resultant instructional strategies proposed in the literature can never be taken as an ideal for every culture. Though contributing to a general understanding of literacy, each model must be evaluated and remolded to meet the needs of the students within specific cultural venues.

An overview of the traditional religious world view and cargo cult mentality affecting the successful development of a vernacular literacy program for the Numanggang adults has been presented in Chapter Two. In the following section, historical, cultural, linguistic, and educational factors that have further influenced the present climate of literacy among the Numanggang adults will be presented.

Historical Considerations

Located north of Australia, Papua New Guinea includes the eastern half of the second largest island in the world and numerous off-shore islands to the east and south (See Appendix B on page 341). In the early 1500’s, Portuguese and Dutch explorers landed on the island (Lea, 1987, p. 121). Credit for its discovery was given to Jorge de Meneses from Portugal who named the island “Papus,” a Malayan term for the curly-haired inhabitants (Kjersmeier, 1948, p. 14). In 1884, Germany annexed the northern
half of the territory and Great Britain claimed the southern portion. Australia inherited the southern section from Britain in 1905 and named it the Territory of Papua. During World War I, Australia seized the northern portion and was subsequently authorized by the League of Nations in 1920 to administer the entire territory. Japanese forces occupied much of the region during World War II until Allied troops reclaimed them in 1944 (Lea, 1987, p. 121).

In 1975, with the birth of the nation of Papua New Guinea, approximately 3.9 million people faced the monumental challenge of forging a new identity out of tremendous cultural and linguistic diversity (Lea, 1987, p. 120). Australia relinquished its rights as the designated protector of the fledgling nation but the European imprint remained. English was adopted as the prestigious official national language, not because
of grammatical or phonological similarity to the indigenous tongues, but because of political precedent.

The linguistic climate of Papua New Guinea demands perhaps more creativity in literacy instruction than any other country in the world. Surveys by the Summer Institute of Linguistics (1996) reveal that there are 817 viable indigenous languages (Ethnologue, p. 845). Spaeth (1997) indicates over 860 as a more current approximation (p. 2)! Further complicating the situation is the historical animosity among neighboring tribal groups – animosity riddled with fear, superstition, warfare, and cannibalism.

As early as 1847, mission groups attempted to begin work in Papua New Guinea (then two separate entities, the northern half of the island belonging to Germany, the southern half to Britain). Initial efforts were abandoned due to disease and isolation. Beginning with the successful establishment of the London Missionary Society headquarters at Port Moresby in 1874, the era of European missionary influence began. Other missions quickly followed: Roman Catholics on the northwestern coast and on numerous off-shore islands; Lutherans on the north coast from Madang to Finschhafen; Anglicans on the southern tip; and Methodists at Dobu in the south and on the Duke of York Island. Mission influence in education and currently in the spread of Melanesian Pidgin, has greatly impacted the nation (Edoni, 1996). However, the deep roots of tribal autonomy continue to present challenging obstacles to national educational programs.

Australian administration efforts to guide the indigenous peoples into the 20th century were admirable, and successful to varying degrees depending on the expatriates delegated to positions of authority. Administrative officers with police enforcers were
assigned to each district, aiding the missions in bringing peace and respite from tribal warfare. Hospitals and clinics brought relief from malaria, pneumonia, and infant mortality. Schools were established, and once isolated tribal groups ventured from their secluded habitats to mingle in the new order.

According to oral history, the ancestors of the Numanggang people occupied the land surrounding the present day airport at Nadzab in the Markham Valley. Warring enemies gradually pushed them further and further up the Finesterre Mountains to the north. Over the years, the rugged terrain became home to the Numanggang, and nine villages sprang up in the mountains on either side of the Kusip River. Occasionally the villages would join together in an alliance to fight a neighboring tribe, however, fear and tension caused war to erupt even within the group. A vicious cycle of killing, pay-back killing and cannibalism held the people captive for generations. Travel between villages was risky, and travel outside of the Numanggang area was unthinkable (Saleng, personal communication, November, 1991).

In 1886 the German Lutheran Church and the New Guinea Company jointly established a center on the Pacific coast, east of the Numanggang (Edoni, 1996). Gustof Bergmann of the Lutheran mission hiked inland, arriving at the village of present day
Gain in 1929. Although his attempts to settle there were abandoned due to poor soil conditions, he eventually built the Boana station east of Gain between the Nakama and Nek language groups. According to the Numanggang, his arrival and subsequent work had a profound, positive effect on their way of life. Warring and cannibalism ceased. Travel lost its dread. Communication among the villages increased and contact with neighboring tribes and other people groups in the province became possible for the first time (Saleng, personal communication, November, 1991).

**Cultural Considerations**

Contrary to expectation when assessing the violent tribal warfare of the past, the Numanggang are a peaceful, gentle people. They credit the coming of Christianity for the calming of fears which precipitated ancestral hostility. Today they live quietly, working cooperatively in extended family subsistence farming groups. The original nine villages have grown to 32 and population increases annually, due to a decrease in infant mortality rates. Each village consists of a group
or groups of men in several patrilinial lineages together with their wives and children. Although membership in a clan used to be important, most Numanggang youth today do not know to which clan they belong. However, the nuclear family and the extended family, which includes the husband’s extended family of origin, figure heavily in all aspects of everyday life.

The adults value education, and therefore literacy, for their children as a form of social security. Children who succeed in school and subsequently obtain a paying job in the city will be obligated to care for their aging parents. Vernacular literacy for the adult community, however, is not a perceived value. Several factors contribute to this lack. First, for centuries the Numanggang language was only oral. Survival and social needs were not met through writing in any form. Second, although an awareness of reading and writing was introduced to the people several decades ago both through the Lutheran church and the government, the Numanggang have not been able to adequately make the connection of written language to oral language because the print has always been in a foreign language. Furthermore, the need to read has been weakly linked with financial gain through the few that have succeeded in formal education – an objective deemed
unreachable by the older generation. The Lutheran church, through the propagation of the Kate Bible (a translation into a coastal language unrelated to Numanggang) has, to a considerable degree, succeeded in teaching the adults to read and speak this language. The extent to which the meaning of the text is understood, however, is questionable and reading takes place in prescribed circumstances, i.e. in religious meetings and occasionally in devotions in homes.

**Educational Considerations**

The limited success of the Lutheran educational system for the adults was due not only to the use of a foreign language in materials and instruction, but also to the disparity of the traditional forms of instruction and learning with the introduced ones. A typical village scenario will reveal the traditional patterns.

It is the day before the arrival of a provincial government official and everyone in the village of Tumun is preparing for the celebration. All the men and boys are gathered together in a secluded area. On the ground are various bush materials and colorful feathers collected from the tropical birds that inhabit the mountains. Only the men know how to create the special bagis, the tall festive hats used in the traditional singsing dances. The boys help gather the material, then watch and learn. As they watch, their uncles and fathers talk about what they are doing while simultaneously modeling the creation of the headdresses. After sufficient observation, the boys are given a chance to try. Hovering over the novices, the elders guide them in their work.

On the day of the celebration, the men and boys put the finishing touches on the bagis. In the village bush houses, the girls and women are gathered around the fires. As
the women peel the taro, sweet potatoes, and plantains, to make a delicious soup for the feast, the little girls copy their mothers and grandmothers. Some even hold sticks instead of knives and pretend to help prepare the food. As with the male members of the community, the women model and verbally instruct at the same time. The girls then attempt to mimic the things they have observed.

The adults do not leave the children to their own devices. They remain as a guiding force, steering the learner in the acquisition of skills. If a child falters, the adult does not say, "You are doing it incorrectly." Rather, a general statement — Undung mu tiing ("They don’t do it like that") — redirects the behavior. Always, the adult models and remolds until the skill is learned by their charge. Interestingly, it is specific adults who bear the responsibility for the socialization of the children so the learner has a lasting relationship with the one who instructs. Maternal uncles are particularly significant in the lives of the boys. Fathers and mothers bear the burden for instructing the girls.

An observed lesson (D. Hynum, personal communication, 1998) in using a gun in hunting given by one adult male to another adult male exemplifies the strategy that will be applied to assessment for the Numanggang adults. Mugalika knew how to care for, load, and use a gun. Gatiwin, another adult male, wanted to learn. Slowly and carefully, Mugalika explained every part of the gun in detail. Then, continuing his verbal
instruction, he modeled the process of using the gun. Nothing was hurried. The instruction and modeling were meticulous. Gatiwin observed carefully, quietly. After the demonstration, Gatiwin took the rifle and copied Mugalika’s actions. Mugalika stood close to the learner, correcting each move with a guiding hand.

Traditional forms of learning were challenged when the Lutheran Church established formal education in the early 1930’s. A church school was built in Tumun village and all eligible children attended for three years. Unlike traditional training, which was modeled by older members of the extended family, the classroom was based on the perennialist and behaviorist views. Teachers dominated. Rigid curriculum expectations with little deviation, and strict discipline prevailed. Although inconsistent with their traditional learning practices, the Numanggang accepted this system as proper and compartmentalized their lives into school and daily life.

The original Kate curriculum developed by the Lutheran Church was later replaced with Melanesian Pidgin books and materials. The Numanggang adults who are currently over 30 years of age attended church school before the introduction of Pidgin. Very few of these adults were able to continue their education. Saleng, from the village of Tumun, succeeded in completing his education in the public system and has been teaching elementary school for over 30 years. Tapuat went on to become a bank teller in the city. A man from another village is now the headmaster at the Lutheran high school in the city of Lae. The vast majority, however, were briefly exposed to reading in a foreign language without mastery.
Gain Community School, a public elementary school under the auspices of the Lutheran Church, was established on the road that services the Numanggang area in the 1970’s. Although the village church school continued to function, most children were sent to board at the new school and children graduating from the village church school continued their education either at Gain or Boana, the nearest government station. A number of the young adults under 30 years of age attended Gain Community School. Most are marginally fluent readers in Melanesian Pidgin.

The methods of instruction and correction in the classroom reflect ideologies at variance with traditional norms. Due to large classes (as large as 60) the ideal one-on-one tutoring system common to the Numanggang is not always possible. However, in adult education, reversion to the traditional form of instruction and correction will facilitate comfort for the older people who are attempting to master the art of reading and writing in their own language for the first time.

Seemingly in contradiction to the one-on-one instructional model, consensus is foundational to Numanggang culture. Sharing, agreeing, and supporting are the building blocks of the society. Before a new concept or plan can be implemented, the entire adult community must be in agreement. An effective literacy program for these people will meld the concepts of consensus on a group level and modeling on an individual level. Group discussions of literature and explorations of new information to arrive at consensus concerning meaning fit nicely into cultural values.

The adults enter a literacy instructional encounter with low self-esteem. If they attended school at all it was for only a few years where they learned to read in a foreign
language. Because they have been exposed to literacy in this foreign language for most of their lives, yet have not mastered reading, they wonder if learning to read in their mother tongue will be a similarly disappointing experience. In addition, most need glasses but cannot afford them.

To complicate matters, the value of writing is not a part of their culture. Because the literacy classes will focus on self-generated literature, understanding the value of writing will be an integral part of instruction. Most of these adults feel quite uncomfortable holding a pen or pencil. Fine motor skill must be developed before they will be able to write. Therefore, writing instruction will be tailored to their physical capabilities – a rather challenging endeavor which may need to be initially set aside in favor of recording their stories orally on a tape recorder.

The adults, having attended school prior to the time of readily accessible higher education, today find themselves alienated from the younger generation. Though still respected as elders, they are unable to participate in the learning available to the children. By creating a new avenue for shared participation in literacy, for the young and the old in their mother tongue, it is hoped that the deep roots of bonded extended families will be strengthened.
Linguistic Considerations

Numanggang was an unwritten language prior to the arrival of the Summer Institute of Linguistics in 1978. Grammatical and phonological analysis confirmed the classification of Numanggang as a non-Austronesian language in the same language family with the Nakama, Nek, and Nuk languages. Within each of these mutually unintelligible languages are numerous dialect differences. The language consists of long, complex verb structures which are difficult for new readers and semi-literate to decode and the sentences are structured of verb chains which often do not cross reference the subject until the final verb.

Phoneme Level

A system of regular spelling for the phoneme system in English, the Initial Teaching Alphabet (i.t.a.) envisioned by Sir James Pitman, proved highly successful in reducing the time spent in learning to read. An eleven year study of i.t.a. was undertaken in the Bethlehem area schools in Pennsylvania to determine if the disparity between phoneme and consistent grapheme representation was interfering with the process of learning to read. The research conclusively supported a system of consistent phoneme/grapheme agreement:

These years of research...show that children: 1) advance more rapidly in reading and writing experience; achieve significantly superior reading skill at an earlier time; read more widely; and write more prolifically, more extensively, and with a higher degree of proficiency, than their T.O. [traditional orthography] counterparts. (Mazurkiewicz, 1973, p. 2).

A later study (Mazurkewicz, 1978) tested incorrect predictions in reading of 25 second-grade students who had learned to read using i.t.a. and 25 second-grade students who had
learned to read using T.O. The results again supported phoneme/grapheme match: “It can be concluded with a high degree of confidence that the use of a regularized orthography (i.t.a.) markedly reduced or eliminated miscue error” (p. 14).

The Numanggang adults have been previously introduced to reading in Kate and Melanesian Pidgin, both having orthographies that follow a more regular sound/symbol correspondence than written English. They are, therefore, predisposed to consistency in phonology and orthography. Because Numanggang is also written with one phoneme being represented by one grapheme, the transition is not complex. The chart on this page lists the letters in the orthography together with the corresponding sound in bold print in an English word. One grapheme corresponds to one phoneme. (The only variation from English pronunciation is the k which is enunciated further back in the throat). Current experience on the adult level for semi-literates who can read in a language other than their mother tongue reveals that, because of its simplicity and because of previous exposure to consistent orthographies, only minimal time spent on the symbol/sound correspondence in Numanggang produces excellent results. Phonetic introduction to the alphabet should, therefore, be incorporated into the instructional model.
For Pidgin readers, the only new symbols to be introduced are “Ɂ” and “Ɂ”. For Kate readers there are no new symbols. All students must be introduced to lengthened vowels, but this does not seem to be difficult when demonstrated in minimal pairs in meaningful text. The greatest obstacle to be overcome is at the morphological level due to the agglutinative verb structure.

**Morpheme Level**

“Yeeniyehitubudidimyaagumuknerjake” (“at the place where those two used to always correct them”), the longest Numanggang word discovered to date, obviously presents difficulties for the reader. But due to the preponderance of prefixes, suffixes, and clitics attached to verb roots, many words are similar word-initially and word-finally, creating confusion and disruption to fluency. Guessing frequently occurs. In English an educated guessing strategy often produces acceptable results. However, one example in Numanggang will suffice to demonstrate the problem. The following two words differ only in the root buried in the middle of the word. In addition, the roots are visually similar:

“Nihitubukedabaluguk” – (“He was saving us.”)

“Nihitubukadakaluguk” – (“He was destroying us.”)

Although guessing may not always be so potentially disastrous, difficulty in reading can increase even further when variation occurs in only one phoneme as in the following example:
“Naadigalikamibunne” – (“They loved us and {change of subject}”)

“Naadigalikanimbuune” – (“He/she loved us and {change of subject}”)

If the research is correct in its finding that “beginnings of words are more important in word identification than the middles or the ends, and ends are more important than middles” (Weaver, 1994, p.178) when attacking new words in reading, then Numanggang readers are doomed. The hope is that the research has a strong English language bias and would, therefore, be less applicable to other linguistically unrelated languages. However, pilot literacy courses in Numanggang and observation of fluent readers confirm the problem with lengthy word identification.

Hope for efficient reading despite lengthy words comes from studies of perceptual development. In one study, children were shown combinations of four letters in pairs of same and different (e.g., EROI – EROI; EROI – EORI). In half of the pairs the middle two letters were easy to confuse (e.g., OEFU). In this experiment and in a similar later one, older children with more reading experience “required fewer fixations, less fixation time, and fewer cross-comparisons than kindergarten children to judge sameness or difference of pairs of letters of varying degrees of confusability” (Gibson & Levin, 1975, pp. 30-31). Knowing where to find relevant information was a critical factor in determining efficiency in discrimination.

In another study of second and sixth graders, wooden animal replicas of various colors, shapes, and sizes were used to determine ability to distinguish same and different. When the children were told which variable was the relevant one – color or shape (size was always irrelevant) – the visual discrimination time was more efficient. Interestingly,
“the older children were better able to exercise selectivity of attention before the display was presented, either by skill in focusing or skill in ignoring the irrelevant features” (Gibson & Levin, 1975, p. 47). Again, prior knowledge of relevant features determined efficiency in decision making:

The main variable of the experiment was whether or not the child was informed prior to exposure of the pair what aspect was to be the relevant variable....Knowing what to look for ahead of time...[did] make for a more efficient decision. (p. 47).

Knowing ahead of time whether to focus on color or shape aided both groups in efficient decision making, but “significantly more for the older group” (p. 47).

If adult readers can be alerted to the importance of the middle of long words, perhaps the brain would gravitate to the center rather than the beginning of each word. Thus, the middle of the word would be most important, the ending next, and the beginning of least value – a bit optimistic when reading long words from left to right, but still promising in light of the research. Additionally, frequently occurring initial prefixes and clitics could be separated from the verb roots with hyphens, thereby aiding the reader in focusing on the middle of the word as the critical component. When tried, it has proved helpful, but currently literate native speakers hesitate to endorse extensive use of the hyphen.

**Attitude Toward Vernacular**

Exposure to foreign languages during this century has provided a rich linguistic milieu. The Markam Valley and the Finesterre Mountains, as an active arena for fighting in World War II, forced the Japanese language upon the people. Subsequent victory by the allied forces brought English to Papua New Guinea as the dominant language of the
ruling class. German missionaries in the Morobe and Oro Provinces, although using two tribal languages, continued to speak their native tongue. Out of the linguistic melting pot created by innumerable indigenous languages, explorers, merchants, missionaries, soldiers, and politicians, Melanesian Pidgin arose as a unifying means of communication. Most Papua New Guineans today, unfortunately, feel that their own language is inferior to English and to some extent Melanesian Pidgin – the languages spoken by the rich and powerful.

Due to the native languages, dialects and foreign languages vying for prominence within the area, competition for language preference continues to present a challenge. However, in spite of the fact that Numanggang presents difficulties, both linguistically and preferentially, for emergent literacy, the people value their mother tongue, and it is the language of choice. Although Melanesian Pidgin is used as a trade language and is now accepted as a church language, Numanggang adults and children continue to use their mother tongue in the home and in daily life. With the development of the Numanggang orthography and culturally relevant reading materials, speakers are now motivated to read their own language.

**Literacy Proficiency**

The adult literacy rate is difficult to assess due to the complexity of languages involved. The older generation, who attended only a few years of church school in the Kate language, differ greatly from the younger adults in their ability to read. Young adults have attended as much as six to twelve years in government or church schools and
can read to some degree in English and Melanesian Pidgin. Surveys and research in this area need to be done in order to properly assess literacy proficiency among the adults.

**Indigenous Teachers for the Numanggang Program**

Instruction by foreigners has already been replaced by local Numanggang adults who have participated in the initial pilot project. Particularly capable and respected members of the first class provided the leadership for the subsequent classes held in the spring of 1996. The formulation of the schedule and the materials used were determined in collaboration with these teachers. Their word was final. The program belonged to them.

The new leaders were already fluent readers, but did not have any formal training as teachers. Rather than relying on unfamiliar modes of instruction, they incorporated their cultural style of teaching – a combination of learning by observation and mission education strategies. Because of the simplicity of the orthography and the previous exposure to literacy in other languages, they were able to bring the young adults in their classes to a fair degree of fluency in reading and ability in writing within five days of classes.

As the literacy classes are held in other villages, participants will become future teachers. Those who are willing and endorsed by the community can continue the
expansion and extension of the literacy program throughout the numerous mountain settlements of the Numanggang.

**Ownership of Materials**

The Numanggang people are not privy to Western material wealth, but the establishment of a literacy tradition depends on a permanent record of written text. Therefore, minimal material must be purchased to provide documentation. Acceptable local forms of fund raising must be addressed by the community.

**Summary**

With 817 living languages in Papua New Guinea, the challenge of developing adequate vernacular programs is staggering. Early Lutheran mission work in the Morobe Province met this difficulty with what they deemed a solution. The numerous tribal groups were taught to read in Kate, a coastal language. Gustof Bergmann of the Lutheran mission settled in the village of Gain in 1929. With the entrance of Christianity, tribal warfare ceased and a climate necessary for the development of schools was established.

The Numanggang adults value education for their children hoping they will succeed in school, secure employment, and provide for them in their old age. They do not, however, view vernacular literacy as important, due to the fact that their culture is based on oral tradition. Furthermore, because they have been introduced to literacy in foreign languages, the connection between oral and spoken language has not been made. Other challenges to be overcome if a successful vernacular literacy program for the adults is to be established are as follows:
1) The introduced perrenialist instructional model and the traditional instructional model must be integrated.

2) Low self-esteem must be overcome through positive encounters with print.

3) The value of writing in vernacular must be demonstrated.

4) Help must be offered for word attack of exceptionally long verbs.

5) Vernacular literacy must be elevated as equally valuable with other languages.

Because other languages are perceived as more prestigious, the fact that their language merits an orthography and the generation and translation of literature validates who the Numanggang are as a people. Learning to read and write in Numanggang has already instilled a sense of worth in those who have learned – a sense that their language is valuable, therefore their culture is valuable. Connections are being made between oral and written language through the generation of meaningful literature produced by the people themselves.

The primary focus of this project is to develop a literacy program for the Numanggang adults who are semi-literate in Melanesian Pidgin. Considerable attention has been given to the rationale for the use of indigenously authored and illustrated materials for the purposes of combating exclusivistic and esoteric notions of literacy. In Chapter Two (pp. 22-145) a number of factors were considered: 1) the history of the development of cargo cult thinking in the Madang and Morobe region and its impact on the perception of literacy; 2) the significance of introducing mother tongue literacy in the form of indigenously written literature in order to reach a perception of literacy as an extension of spoken language; 3) the justification for the use of illustrations to augment
meaningful communication and increase motivation; 4) the importance of using local art due to culturally defined aesthetics and perception; and 5) the value of a model for the adult literacy program founded on community ownership. The proposed program for the Numanggang adults based on Verandah Story Notebooks which are indigenously authored and illustrated, supplemented by the Transfer Primer, provides a potential solution to the numerous obstacles challenging their entry into the literate community.

The following items are offered as foundational materials for the program:

1) Verandah Story Binder
2) Alphabet Books
3) Transfer Primer and Transfer Primer Workbook (Melanesian Pidgin to Numanggang)
4) A Five-Day Lesson Plan: A Transfer Program using the Verandah Story Notebooks, the Alphabet Books and the Transfer Primer
5) Writing Together – Instructions, A Five-Day Writers’ Workshop, The Authoring Cycle
6) Samples of Illustrated Stories – Variations on a Theme
7) Proposed Numanggang Literacy Survey and Assessment Packet for Adult Learners
Appendix A2.1

**Verandah Story Binder**

The focal point of the adult Numanggang literacy program will be the creation and use of stories collected in three-ringed binders. The binders will contain stories written in writer’s workshops. Each page will be inserted in a plastic sheet cover for protection. Stories can be added or subtracted according to instructional purposes, the desires of the students, and the material available.

Paper, plastic notebooks, plastic inserts, writing utensils, and colored pencils are not available locally. It is hoped that participants will contribute toward the purchase of these supplies. Where no technology is available, selected scribes with excellent hand writing could be delegated to transcribe a final copy for publishing. If the final texts are to be mechanically printed, a typewriter to which đ and q have been added and a silk screen printer will produce adequate copies. However, a computer and printer would yield better quality print. Ideally, a color printer, scanner, and a digital camera could be purchased for the program, and local people trained to publish the literature.

The initial binder contains a sample of non-fiction verandah stories. These are historical narratives and biographical incidents that have been collected from previous writers’ workshops. The stories were written by various Numanggang authors. Illustrations were created by Mugalika, a local artist. The color was subsequently added in response to research evidence of preference for color pictures. Students will be
encouraged to write true stories to add to this binder. Later, another binder containing Numanggang myths and legends will be created. Other categories of stories and literature can be organized in additional binders.

There are a number of advantages to the binder format:

1. **Durability** – Both the binder and the plastic page covers will protect the paper. There are no staples that will rust; no paper that can be soiled or torn; no binding that can disintegrate.

2. **Fluidity** – Unlike other possible formats for book publication, the three-ringed binder assures that the process of writing can continue without the necessity of publishing and binding an entire new book every time. For example, as historical narratives are written, they can be placed in chronological order in the binder. If mistakes are discovered in the spelling, or if the writer is not satisfied with the final version, only the page in focus need be reprinted.

3. **Flexibility** – Individual stories may be removed from the binder during literacy courses and writers’ workshops to be used by individuals or in small groups.

4. **Convenience** – Rather than managing and storing numerous small story books for courses and workshops, the teacher will readily be able to file and store only a few binders. Furthermore, because there is no need to create covers and binding for each story, publication will be greatly simplified.

5. **Replicability** – The protected stories can later be used as photo-ready copies for publication.
5. **Expandability** – Additional binders can be added at the discretion of the instructor and the learners. If a new category of story is produced, a new binder can be created. If no more room is available in a binder, a second one can be used. Potential for the expansion of the materials in the Verandah Story Notebook assure the constant creative and re-creative nature of the Numanggang literacy program. Only the people can determine its composition and its limitations. As stories are written, edited, collected, and shared, the history of Numanggang literary tradition will be birthed. Following is a beginning list of suggested binder titles:

- **Kahat Biyaagoŋ** – (True Stories)
- **Molodaagi** – (Myths and Legends)
- **Kahat Filiningon** – (Funny Stories)
- **Tubuloda diniŋ Kahat** – (How to or Helping Stories)
- **Kahat Bulaaningon** – (Sad Stories)

The initial entries to the **Kahat Biyaagoŋ** Veranda Story Notebook are displayed on pages 173-198.
Kahat Biyaagonj

Papané Walanj Kahat
   Tiliu Mahambedi Youkuk

Koŋkoŋ Dinij Kahat
   Mupanu Saleŋdi Youkuk

Nu Me Fafau Kaagut
   Mupanu Saleŋdi Youkuk

Gip Henaagiq
   Mimasadi Youkuk

Tout Dobugumun Diniŋ
Kahat
   Zuhukec Yomdi Youkuk

Kamodi Me Niŋ Naagiq
   Maiyucdi Youkuk

Kale Kaliŋ Ugumun
   Munok Bendoŋdi Youkuk

Welewele Mugalikadi Tuguk
Papane Walaŋ Kahat
Tiliu Mahambedi Youkuk
Koom qaha papane adi wou miikme nimbuune haatiluguk. Alaa adi yoqet kubugon mu itouluguk, man’gonde adi miik momoon tuluguk doktiña qetqet miik daan miintaluguk u tuwot nu papane hogok katiniimbuu woon yehitubulodaluguk.

Adi miik deediñ titiñdok taali hogohogok agon naadidapmaguk doktiña fafañeeñ miik tiyauluguk, undun doktiña Bepandi papane kaan indiñ naadiguk, “Me i qetqet yauña me yehitubulodaan miik tiyaune agon naadimindapmainñ. Undun doktiña gigit medeene yeendigon weleen tubutekeleune nu-walan qanai tibaak.”
Unduŋ naadiguk weendok tuwot hinaale heeki gigitmede tiŋa buune papanne adi miikme haatiguk īŋgoŋ pilap hinek weleen tubutekeleen hinaale heeki guut haatinya pepayotneŋ fooguk.

Pepayot fodapmaaŋ mindaŋ adi bu gigitmede yoyo tubuune metaam feedi weleehik tubutekeleen Jesu-alaŋ gawaambop tigiŋ.
Gaïq yoqetneq unon ila hinaale qanai haati tuluu
Bepandi naadiuune keenim wapum tiına qet tawaune Gaïq
ikiŋ u waabinya foön yoqet koobuli Tumun unon tigiu. Tiña
papar adi Gaïq waabinya foön Tumun itouña talitemen qanai
tihaañiŋa kumųnguk doktiŋa indi Tumun qet înon itowaam.
Unduŋ hogok.
Koom qa ha indi-walanga mamanipapaniyee ade maa, naangu, tina tite hogok naa haatiyaagin. Tina qii molum nai ginee ade maa kinaag hinek tiyaagin. Unduq tina haatiluune nanaq hoobut momoonq hinek niiq buguk u ade wou koqko. Koqko ade taalik deedeq gineeq buguk u indeeq.
Koom qaha Simbaanhi gigitmede tiña bugiñ, adi buñə Yoboñi utoñ yot maañ ila konkoñ uгоñ tububihilaña yeetiñ. Kaañ Tumuñhi metaamdi koñkon u kaañ indiñ yoogin, “Kee, Simbaanhi adi mabaanim undihi mañgoñde mongoola buñə yeetiñ?”
Ỉŋəŋ mindaŋkade kagaŋ adi naaŋŋe momooŋ hinek kaaŋ naadifo wapum tiŋa mongo yeetiyaugiŋ, kaaŋ koŋkoŋki Gaiŋ kayoonbop maaneŋ kilidapmaaguk, kaaŋ koobuk nai indiyeeng Gaiŋ kayoonbop maaneŋ metaam be waapmihi indi koŋkoŋdi miŋ tinimlak doktiŋa indi naadifo wapum taam. Ale indi Bepaŋ niutumba taneem.
Młgonđe adi inditok uŋgoniŋ hinek naadiną
nihitubulodaŋ koŋkoŋ niimguk. Kaaŋ koŋkoŋdi bop
meebii-meebii miintalak u ulihilak. Tiŋa koŋkoŋdi kedeem
bop u kadokoune moo møonŋ haati wooŋ naiŋiŋ gineŋ
dapmalak. U Bepaŋ-walaj silonŋ.
Unduŋ hogok.
Nu tiŋa daatne wou Lilige indi me sigihik fafau mu yaabuŋa yoŋiŋ qeqtnineŋ inoŋiŋ hogok haatiyaagumut, ala papaanik adi inoŋiŋ deebedeebek yaugə yaugə yoŋeq niŋ tubumiintaŋ metaam sigiiŋi fafaudi gouyehi nooliduut noŋ tiŋa haatiyaaginŋ u woŋ yaabuguk. Unduŋ tiŋa heleeniŋ Papaŋdi Liligedok mede nai kamemimbuunye foonŋ kaaguk.
Kaan ʉŋgon haatiŋa laabuną naanĩŋguk, "Dalaane, du ʉŋgon haatilaŋ. Papaŋ haatilakneŋ wọŋ, me sigihik bolak naabugon ḥafau hogok ʉŋgon haatiiŋ, ala deenĩŋbek ńonoŋ woonŋ yaabudeemeet."

Unduŋ naanĩmbuunę nu adi momolok heekı noobu yaabuną bu naaniliwek yoonja munta kisan tiŋa moong yoonja haatilugut.
Ala heleen naaninguk, “Dalaane, agoi haloon fodim.” Undun yoobuu nu munta kisan tugut, i'gono heleune fiit ugumut.

Usuwaan agoi hogoolinen be dewelat yoona me fafau ni' kaan hake agoi kamis bineek kumu'bit yoona hehele ti'na tibee Liligedi naaninguk, “Munta mu tibe'. Papan adi me fafau u boulak kalan, adiguut ku haatilak on. Ala kaugon naagila iku budeemek.” Yoobune naa hehele kisan naadi haakut!
Halee Papaŋ duut me fafau i buguk kaŋ deediŋ tibek yookaagut, be adi buŋa kohokukut tiniimmja mede moomoon ninŋuk. Kaŋ Papaŋdibo indiŋ ninŋuk, "Ya laaneyat."

Unduŋ yoobuu me fafaudi yooguk, "Haaloŋ nu yootneneŋ woon nanaŋe nanim."

Unduŋ yoonja uune Liligedibo mede u naadiŋa naanimbuune naadiwee ūŋgoniŋ tuguk. Ala heleune woon adi-walanŋ yoolineŋ nanaŋe naagumun.

Unduŋ tiŋa indiŋ naadigut. Biyaagoŋ siginikdi meebii meebii, eenŋ yotnik qetnik unduŋŋ moloomoloom, Ūŋgoŋ munaabluliniŋ adi kubuŋgoŋ. Kunum Betnik adi kubuŋgoŋ u naadidakaleen kootigoonŋ me fafau yaabu munta mu tugut be tilat be tibaat.

Unduŋ hogok.
Gip Henaagij
Mimasadi Youkuk

Me gawadaan niij yooli tuwai foloŋ maanŋ itouluguk, ala qeliinenŋ weene uguq. Woonŋ kaluune meyat lufoom adi kade yothonk ginenŋ uŋgoŋ gip yahenaagumuk.

Kaŋ indiŋ yeeniyguk, “Papaŋ yakaat, gip neenŋ henaamdeemek.”
Unduŋ yeenimbuune gip hembe niŋ tuwodi tiŋa mingumuk. Mimbuuqe qefoloŋgoŋ foŋ ilaŋa naaguk. Iŋgoŋ maŋiŋ hogoli doktiŋa yalan-yalan naŋ naŋ kumuyeeguk.
Kaan gip hambedi koodi ginaŋ foon ūluune dautilitilik tiŋa, kohooŋdi imedok yoonŋa welewle tubuune ime tiŋa mimbuune naaŋuk. Unduŋ tiŋa muntaŋ pilali momoonŋ yooliide looguk.
Tout Dobugumun Diniñ Kahat
Zuhukec Yumdi Youkuk

Heleenįñ me kuyahi mohok tout dobunee Guabude ugumun. Woonį tout yadobunee qii wapum uluune tout pilapilap dobuńa yehiqlienq taalipmenq banee qii agoń dokooguk. Kaanį foonį tout ime kubaalineŋ boiyaneene mele diweeguk, kaanį ime ginaŋ kale kalinį titaloogumun. Loonį me nińdi meńgiñ kaanį indiñ yooğuk, “Ai! Mekuyahi, pilap! Meńgiñ kakaanį ńgoń hatań!”
Hina'n hatuune bufaune ugi'n. Uluune mambip hinek tubuune kamañ gaali unen yoo tigini, ingoñ masisihik dapmaune wabiña ugi'n. Woon me niñ kawade u mu kaan taalik iñaakoñ bineek yoonja woon muñ kawade folon ukuk. Undun tiña moon kaan kihamaane tiña ugi'n. Woon kootigon me nimañ taalik didimeenñen be ulat yoo kawade folon loon maan ukuk.

Kaann nooñiñiyeedi niñiñiñi, "Noobu gehitubukakaluwek."
Undun nimbuune adi yooguk, "Moorn, kedeem hatat ale."
Undun yoobuune nañiñlaññañ yohite Kasinde ugi'n.
Mekuyahi indiñdi tiyaugi'n: Kaawek, Risieoc, Qembeñ, Zuhukec een nooli maan.
Kamodi Me Niŋ Naagiŋ
Maiyucdi Youkuk


Kaaŋ metaam adi mu naadiŋa haatiluu melenai lufoom kulitniŋ agoŋ dapmaaguk. Kaaŋ Tumuŋhi kamo adi uŋambunŋat tiŋa nayaagig.
Kaan heleenii Diput malaamdi kadehite udee ugumuk. Woon kaluu bubugaim dendej adi yot be bahaamut adi gouve ti'ja haakuk. Kaan Diput malaamdi woon kaluune Baadiba kamodi naluu fukunii agon bitakatauluguk. Undiniu kaan kiyaane hogok labu'ja gongon ulune metaam bu'ja bopnej, me heekidi palaj koomeegon tutumbaaj kolondebek maanj tutumbaaj hogokfoon ti'ja palaj ginej kameegiin.
Unduŋ tiña unqon ninaadinña naagila buŋa woon metyotneŋ weneeginŋ.
Unduŋ tiña kamo mebitik naagin u widihi kumun tiginŋ. 
Unduŋ hogok.
Kale Kalih Ugumun
Munok Bendoñdi Youkuk

Undun tiiga fukuj haakumun indi kutininimbuune indibo qet hogooli i mu katumbaang wenengeila ugumun woon taamyat lufoom mage foogumuk foon bem niij gineg ngwong uloodi haakumuk kaan taamyat lufoom niindibo foon yehitubulodaang yehihamaanedim yaaange foogumuk foon bembitik niij yaali fambikeneja wanakaaj manja hamde ugin. Undun tuluu nooli indi noobu maan widihi kumuluweknej yaaange gibita momoogumun.
Unduç tiña naadigumun adi nehigone uŋgone foone kikakika tiña gege titaagii kaan naadina kutiyeeninee kumaan taalik duwaan qai laabugii kaan kale widihigumun u bopneen yaabuna mungola yaaweneen kadahan yaopmande uguumun.
Unduç hogok.
Hinale-walaj Nindidime Mede

Mede Kunakunat Diniŋ Pepayot Woondok Mede

Kahat hohohogok pepa yeen geneŋ ikiŋ adi biyaagong metaam-walan haatihaati geneŋ miintaagin. Hinale heeki adi kedeem pepayot waapmihi be metaam yenindidimeen kahat yendi yehitubulodaune kunatkunat tineen. Kaŋ hidi taalik fee geneŋ keleen yehitubulodaneŋ. Taalik lufoom kabe adi indiŋ:

1. Kahat yeen adi hautan-gon kunaluu pepayot heeki naadinya welewele yaabunaadifo tineen.
2. Kahat kubugon dinin haapmuŋ mongoola woon pepayot heeki meeniŋ mimbu nee naadinaadi geneŋ kunat tibek.

Mede Youyou Diniŋ Bop Woondok Mede

Metaam nooli adi nehi-walan mede kahat youtne naadinya bopneeŋ kutihaanimbu woon indiŋ yehitubulodaneŋ. Kahat yeen u metaam yeembu kunatnaadiŋ iluu naadinaadiŋ tubukaika tubuu nehi-walan kahat kedeem youtne tiŋit. Unduŋ tubudapmaanŋ mede kahathik tubudidimeen welewele maŋ youluu kahat gitipmuhi u pepa yeen guut kiula mongo woon yopmaŋ boina metaam be pepayot waapmihi kahat u maŋ kunatneŋ.

O hinale heeki,

English Translation:

Instructions for Teachers

Literacy Classes

The stories in this book are all true stories. They can be used in literacy classes to help teach reading. You may use the stories in many ways. Here are some ideas you may try in your classes:

1. Read the stories out loud to the students and show them the pictures.
2. Take out a story and give it to one person to read silently.
3. Take out a story and give it to a small group of students to read together.

Writers’ Workshops

Use the stories in this book during writers’ workshops. The participants may read these stories to help them think of new stories to write. After the writers have written, corrected, and illustrated new true stories you may add them to this book.

Please keep this book in your literacy box. Do not allow the students to take the book or stories from the book home with them. Please keep all stories inside the plastic covers so they will not get wet or dirty.
APPENDIX A2.2

Samples of Alphabet Books

The samples of Alphabet Books in this Appendix are representative of the books authored and created by Munok Bendong and Mulang Mainapo. Although the illustrations were not done by them, the pictures are reflections of their ideas and desires.

These books will be produced as big books to be used in conjunction with the Verandah Story Notebooks and the Transfer Primer and Transfer Primer Workbook. The letters will be introduced throughout the five-day class. The Alphabet Song on page 219, written by Bayang Saleng and sung to the beat of kundu drums, reinforces the letters and the key words introduced in the Alphabet Books.
O o - Ohoop

Munok Bendoŋ duut Mulaŋ Mainapodi youkumuk.
Du kale nawee gaalikignoñ naadìna kame yaleñkañ kamodi tìña uu mede deediñ yoobenj?

Makaye niñdi woon dininage tubukadakaune woonkañ mede deediñ yoobenj?
Nanaŋe kobaŋ niŋ tuwaŋ hoonefaniŋipneu maune mede deeding yooben?

Nooke niŋ wanaŋ haudeemek daaqik ginen maaluune mede deeding yooben?
Munok Bendoŋ duuŋ Mulanŋ Mainapodi youkumuk.
Heekimiit kadaa niŋ hautahik mooŋ kaŋ dum gineŋ hakiŋ.
თითა უნდუგო დუმ გინეუ ნანაჲე დეეთი ხინანეჲ მუუჲ ქააჲ მაპ ჰახიჲმ.

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Ala mehikdi dum gineḥ ʷŋgọŋ fiit fowooŋ hautadok metaam yeeninaadiguk.
هجنًت مَتْاَمَد أد وِمُحُك يِيِنَيْمَبْعُو َنَ وَءَعْبِيْنَا دُمِ َغِينَ حَوُك وِنُغُونَ حَيْيُنً.
G g - Gitom

Munok Bendoŋ duut Mulaŋ Mainapodi youkumuk.
Heleenį waapmihi gitom nanee naadiņa hayoonaadigee ime gineŋ gitom kalį tinee ugiŋ.

Tïŋa gitom adi kobaŋ hinek doktiŋa baigŋ baigŋ hahinaluu mambip tiyeembuk.
Kaare gitem nooli hogok mongoola dum ginen yaudewedewe ugin.

Timen uguuki woon bem meebii folon youtamgup tubuune noolihiyeeedo adi sigii folon loon kifaimi tina tigii.
Munok Bendoŋ duut Mulaŋ Mainapodi youkumuk.
मार्य मोमोोन्य अडी हेलेमा-हेलेमा नानाजे मोमोहि होगोक तिलिदोकोोलाक।

तिणा मार्य मोमोोन्य अडी योट कडोको मार्य तिलाक।
Ala nainiŋde maŋ momoonŋ adi dinina qanai maŋ tilak.

Maŋ momoonŋ adi waapmihiŋiyee momoonŋ hogok nibidokoolak.
N n – Noŋ

Munok Bendoŋ duut Mulanŋ Mainapodi youkumuk.
Nonj mamanipapaniyeedi möngo haatigii adi kawadedi tutumbaam möngo haatigii.

Nonj koobuk möngo dinina qanai tiyaam yaadi fofohi hinek.
Non koobuhi adi miikit doktiŋa nihitubulodaune qanai tiyaam.

Tɨŋa nɔnŋi nihitubulodaune fiyarnaŋ be woobunat loongon folon tiyaam.
KUNAT KITILIT KAP
(written by the Numanggang and sung to kundu drums)

Indi wanaaŋ kap tooyaam.
Indi kudi naadidapmaaŋ,
Kunakunat kedeem tinim,
Tirŋa naadifo tinim.

A a – aŋelo, aŋelo
E e – eyaan, eyaan
O o – ohoop, ohoop
I i – ipaan, ipaan
U u – uyaan, uyaan

˪ a, e, o, i, u qanai wapum tiŋ, toonŋa naadinim

Metaam kudi i momooŋ
Toonŋa kedeem naadinim.

Kudi wou indiŋ toonim.
Toonŋa kedeem naadinim.

M m – maŋ
N n – nonŋ
ŋ ŋ – ŋaŋ

T t – taam
K k – kalaam
P p – papaŋ
W w – wom
Y y – youŋ
L l – lufoom
H h – haapmuk
F f – fukut
S s – sukut

Kudi agoŋ toodapmayaam.
Lufoom hogok u toonim.
Toonŋa naadidapmanim.
Kudi u wou indiŋ yoonim.

Q q – qeheyehi
Q q - qeheyehi
APPENDIX A2.3

Transfer Primer
(Melanesian Pidgin to Numanggang)

The Transfer Primer is divided into five lessons. Each lesson is supplemented by a Transfer Primer Workbook (Appendix A2.4) lesson to be completed either in class or as homework. The lessons will be used as a guideline by the teachers to introduce each concept. The lesson content is as follows:

Lesson 1: a) Introduction to the Alphabet, b) Vowels (Already Known)
Lesson 2: Known Consonants
Lesson 3: New Consonants
Lesson 4: a) Lengthened Vowels, b) Story Writing
Lesson 5: a) Other Difficult Features, b) Reading Practice

Both the transfer primer and the transfer primer workbook were created prior to the writing of this paper. Although most of the illustrations were created by Barbara Hynum, the cartoon format was suggested by Ngeram Mahambe and all pictures were repeatedly subjected to assessment by the Numanggang. All text material was authored, reviewed and revised by local readers and teachers. The following people were involved in the creation of this primer:

Mupangnuc Saleng  Samuel Saleng
Gambing Gindoko  Mugarekac Daugnak
Bajang Saleng    Hawa Mumuge
Ngelam Mahambe  Tirijuc Mangbiang
OLAMAN! TOKPLES BILONG MI
I SWIT MOA!
Ooo! Ei...em nau! Ai, nau mi ritim tokples bilong mi na mi klia!
Eh, yu sanap na yu lukim mi ritim tokples na yu aigris long mi, a?
Ai, mi skul pinis na mi les long skul gen.

Tokples bilong mi i swit tru. Yu ritim na mi klia, tasol mi lapun pinis na mi no inap ritim.

Mi save ritim pepa long tok pisin, tasol tokples em hevi tumas long mi.

Mi laik save na mi amamas long traim.
Mi save, yupela i gat laik long ritim tokples tasol yupela i gat planti tingting, olsem na mi laik tokim yupela.

Tokples i no hat.

Sapos yu save rit na rait long tok pisin, bai yu inap ritim tokples tu. No ken wari. Kam, na bai mi helpim yu.
Lesen 1

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</tr>
</tbody>
</table>

Lukim pepa ya.
Ating yu save pinis long a, e, o, i, u.
Tru, a? Dispela 5-pela leta i gat bikpela wok long tokpes bilong yumi.
Yu laik lukim wok bilong a, e, o, i, u?
Orait, stori i stap long pes 31.
Sapos yu laik, lukim planti a, e, o, i, u i stap insait long stori long tokples na bai mi wetim yu.

Wanem tingting bilong yu? Me tok tru, a?
Planti a, e, o, i, u i stap long olgeta tok long tokples bilong yumi.
Mi laik yu tra im long ritim dispela faipela sotpela tok long tokples na lukim gut a, e, o, i, u.
Sampela leta moa yu save pinis mi bin raitim long blekbod. Sapos yu bungim dispela leta wantaim a, e, o, i, u bai yu inap long ritim planti tokples. Long sampela tok long dispela lesen bai yu lukim narapela leta ŋ yu no save yet long en. No ken wari.

Traim tasol.
Makayedi mihi siwee tilak.

Namaaneyee nap gaali yakaam.
Bubulaak beheepnerj haatilak.

Dumaak dimbuk nawee duwookene tilak.
Gomak adi hakule tilak.
Gitom adi mele hokom tilak.
Hhhhhh, tege adi kobaaj hinek!

Me tege tout tilak.
Kamo kudup gagaayen deitak.
Pupup hogohogok adi papaalihiŋit.
Waagim duut wom adi yot maanej hakaamuk. Me kuya adi yat nalak.
Li, in finambut!

lik

loopne

Taam bubuyiyat adi lik mowoodi ti loopne taamuk.
Hh

Hinamo duut hawom adi menot taamuk.

Ss

Sisige adi map naadinga subat nawee tilak.
Me fukutnjit adi filimpit tubuune boho ti yakalak.
Ai, gutpela tru! Yu ritim planti stori pinis na raitim sampela tok olsem na mi amamas long yu!

Nau bai yu lainim dispela tripela leta i no stap long tok pisin. Yu bin lukim sampela $\eta$ pinis long stori long hapsait, $\alpha$? Long dispela lesen bai yu kisim save long $\eta$, $\alpha$, na $\eta$.
Nakŋaat adi nom naŋ "ŋam̥ŋ|m"toolak.
Mihinaŋgiti daam kohoon naŋ siwee tilak.
Nanaŋe ŋamŋit mu nanajudok.
Qembeke adi kudikudįjįt mohinek hatak, kaŋ qeboboi yaluune qet folon bem yakiŋνeŋ qan heeki kap miyeĩŋ.
Long tokpes bilong yumi i gat q tasol i no gat long tok pisin. Lukim piksa long daunbilo. Traim long ritim tok na harim nek bilong dispela leta q.

Qatak duut qenteen adi qaim ginen loon haluu qii widihilak.
Oo, du momooŋ hinek tilan! Inde-walan mede u agoŋ naaɗapmalaŋ dokitōa baagi mede kooti mu yoobit.

Kahat nooli gineŋ a, e, o, i, u noŋgoŋ hakiŋ u agoŋ yaaburaj dokitōa kootigoŋ gaaniŋdakalewit.
Maŋgoŋde tiŋa a, e, o, i, u lufoom youkaam? Indi adi mede yooamahaane taam doktiŋa lufoom youkaam. Mede kumaŋ hatak kunaali naadiwenj.

**baŋ baŋ**

Baŋ adi me momoonŋ hinek.
Pupupu baŋ u kobaŋ hinek.

**siwe siwee**

Too siwe tiŋa mik tugumuk.
Kamodi momolok siwee tuguk.
Wom koobugon gaalimun.
Iŋgon woomgaamulit.

Konkoŋ kabot mundi tilak.
Mundii haabuŋa naadifo tilak.

Agon bulat ale une.
Hidi uune nu koobuk wit.
Ai, baigon!
Kaule mu tibeŋ.
Inde-walan mede ginaŋ mede kitili 22 hogok hakiŋ. Tigaane kudi lufoom-kulitniŋ yeendok mawaanenŋ.
Jesu
Jerusalem
Josua
Johane
Jakobo
Jodan Ime
Jona
Juda

Johane
Jesu
Jodan Ime

Johanedi Jesu Jodan Ime ginen imeyout timinguk.

Mede lufoom komanñkade u yoonaadineñ:

yehitubukedabaluguk

yehitubukadakaloguk

naadigalikamimuune

naadigalikanimbunne

250
Luka 8:22-25


Unduñ nimbuune Jesu adi sukuleen pilaali sububa duut ime mede yeenimbuune kulemaagumuk. Kaan mihiniyee yeeniguk, “Hidi naadisukilitihik de?”

Unduñ yeeniguk kaan adi boho tina muntañ nehi unoñ indiñ yoonaadigiiñ, “Me i deediniñ doktiña sububa duut imedi medeeññ naadiyaamuk!”

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Ninaadi Tugut
Hawa Mumugedi Youkuk


Tiŋa Tride indigoŋ foon ninaadi yoobu mongokaagĩŋdigon mongokaagĩŋ, kaŋ nu adi helema-helemaŋ ninaadi mongokaagĩŋ kaŋ hogok ila bulugut. Unduŋ ila bu naadiwee tuwot mu tubuu heleeniŋ foogumunnen indiŋ yoogut. Nu naadinaadi yotneŋ mu foogut daabugon hogok ila bulat, ale kamiŋ adi ninaadi nuubo tibit. Unduŋ yoonā ninaadi yooluu tibit be biwit unduŋ naadiŋa weleene pitpit tubuune agoŋ mooŋ hinek ila tugut. Ila tiŋa fiit yeenimbeene naamgiŋ kaŋ nu ninaadi u tiŋa kame ikut.

Kame ilaŋa Gigitmede yoonaaði tigiŋ u bee naadigut ale, nu adi ninaadi deediŋ deediŋ tibit yoonā naadinaadi ila tulugut. Unduŋ tiŋa agoŋ ninaadi nai tubuune weleene pitpit hinek tubuune agoŋ mooŋ hinek naadiŋa ila tulugut. Tiŋa ila naadiwee Munaabuliidi weleene ginenŋ foon weleene pitpit tuguk u tubukulemaaguk kaŋ nu ninaadi kedeem tugut.

Unduŋ tugut doktiŋa koobuk adi ninaadi be Gigitmede yoooyo u kedeem tilat.

Unduŋ hogok.
Hulei! Du aģon naadidapmalan doktiña kougo numanqoŋ mede gineŋ kunakunat be youyout kedeem tibaŋ, tiŋa naadiña Bepan-walan mede kunaaluu woondi haatihaati gaambaak.
Heleenin\nJesu adi gigitmede\nyoyo tuluune...

Indi-walan\nmede\n\nkobaa\nhinek, e!
Appendix A2.4

Transfer Primer Workbook
(Melanesian Pidgin to Numanggang)

The Transfer Primer Workbook is divided into five lessons which correspond to the lessons presented in the Transfer Primer. Although the work in the Workbook may be done individually, the learners may prefer to work in small groups.
OLAMAN! TOKPLES BILONG MI
I SWIT MOA!

WOKBUK
Mi soim yu pinis ol leta long tokples bilong yumi. Olsem na yu yet yu raitim long daunbilo. Mi soim yu sampela Aa pinis.
Raitim nem bilong ol piksa long lain. Isi, a?
Lesen 2

Kisim pensil bilong yu na raunim ol tok i hait i stap namel long ol leta nating i stap insait long bokis. Ol tok i wankain long ol tok i stap daunbilo long lista. Mi raunim tupela tok pinis.

makaye wom
kudup gomak
dumaak yat
pupup tout
nap lik
Long dispela liklik pilai yu mas raitim sampela tokples i go insait long dispela bokis. Sampela tok i go stret na sampela tok i go daun. Yu yet lukim tok long tok pisin na yu raitim long tokples insait long bokis. Mi raitim namba wan tok i go stret pinis.

Tok i go stret:
1. kumul
2. moni bilong bipo
3. bus

Tok i go daun:
1. pik
2. bus paul
3. diwai
Yu save planti pinis olsem na yu inap ritim dispela sotpela stori.

Yot moloom adi gilem kaledok boiguk.

Ala mambip tubuune kubome adi kabup buguk.
Adi gilem u mu kadakaleeguk.

Dokti adi gilem u kabup tobo tiŋa momooŋ uguŋ.
Tupela tok i stap insait long banis. Yu makim wanpela tasol na stretim tok. Tingim stori long kubome yu bin ritim pinis na bai yu save wanem tok yu mas raitim. Bihain raitim olgeta long ol lain i stap daunbilo.

1. Yot moloom adi _________ (gilem, tebe) kaledok boiguk.

2. Mambip tubuune ___________ (hinaale, kubome) adi kabup buguk.


4. Kubome adi gilem u kabup _________ (tobo, dahi) mauguk.
Lesen 3

Dispela stori i gat planti n tasol mi raitim stori i go na mi lusim wapela spes long yu putim ol n. Mi bin putim wapela pinis.

Heleenin j ma_ ni_ adi nana_e sisaani_ u _am tibaakne_ yoo_a hekoobu tibit yoo tuluune __ak__ak__i__ makat kooluune wabi_a nom ila mi_guk. Undu__ ti_a mu kaa__ ituune mihina__git ni__ bu__a kohoo__ _aa__ siguk. Undu__ tubuune yakawe toobuune __ak__ak sukulee__ makat kooluune mii_ bulaani__go__ naadi__a nom kootigo__ mi__guk.

Nau ritim gen!
Dispela 5-pela tok i gat planti ይ. የህ ritim na raitim.

1. ሰም ኩስጠጊስ ከተእማ ከተእማ ከጠም ከእለት ከእለት ያሇን.

2. ሰጋን ለስፈላጊነት ከመስጠ ለመስጠ “እንዳን” ያሇወጣሁ.

3. ሰጋንነት ከን ባን ዘሎ ዘሎ ከታ ከታ ያሇ ያሇ ያሇወጣሁ.

4. ይላሱን ይእክኖ ዯሱ ዛሱ ከታ ከታ ያሇ ያሇወጣሁ.

5. ይሆነ ይሄ ይሄ ይሄ ከታ ከታ ከታ ያሇ ከታ ያሇወጣሁ.
Nu heleenii yootne_q eetnenenj wee yoonj a ugut. Uge ugee __ebbooi niq kaaj uungon looŋ yaali kawee mele fofonneneqkade __ebbooi __ehyeeenii niq looŋ yaakuk, kaaj uuyeeŋ yakawee bem niq ginenj __aŋ fee buŋa kap miyeeegiŋ. U yaabuŋa naadifo tiŋa woon __ebbooi niq ginenj looŋ kawee mulu__aŋ ginenj __embeke mohinek haluu kaaj naadifo tiŋa yootne__eetnenenj usuwaagut.
Kisim pensil bilong yu na raunim ol tok i hait i stap namel long ol leta nating i stap insa'it long bokis. Ol tok i wankain long ol tok i stap daunbilo long lista.

qembeke
qet
qaŋ
qebooi
qaqa

t q e m b e k e y f
q e e q n a i
q e e q n a i
q a q q a Q d i Q Q

qanai
qeept
qihiita
qayaŋ
qeetniŋ
Dispela stori i gat sampela q. tasol mi raitim stori na mi lusim wanpela spes long yu putim ol q. Mi bin putim wanpela pinis.

Heleeniŋ q atak duut enteeņ adi mele momooņ hogok diweune loopne tìdee ugumuk. Wooņ aim gineņ looņ ilaŋ̧a enteeņ adi mede mohinek toobuune atak adi naadifo tiŋa aim gineņ looņ tatakuŋ ya tuguk. Unduŋ tiŋa naadifo tiŋa hatuluu ii wapum buŋa widihiune wabi wooleeņ maugumuk.

Nau ritim gen!
Kisim pensil bilong yu na raunim ol tok i hait i stap namel long ol leta nating i stap insait long bokis. Ol tok i wankain long ol tok i stap daunbilo long lista.
Yu ritim sampela tok moa i stat long q na q. Raitim long lain.

Qanai  Qīhi
qanai  qīhi

Qaqa  Qaan
qaqa  qaan

Qayaan  Qaqaan
qayaan  qaqaan

Qihita  Qihiba
qihita  qihiba

Qedeqede  Qendilik
qedeqede  qendilik

Qaambunda  Qaabem
qaambunda  qaabem

Qeheyeeniŋ  Qeheyeeniŋ
qeheyeeniŋ  qeheyeeniŋ
Dispela stori i gat planti q na q tasol mi no raitim. Yu yet, yu lukim tok na raitim q o q.

Nainiňde ᕧ社会实践 adi yot madee bem ᕧede ede kalin tigure. ᕧanai titaŋa ᕧehye tiŋa ᕧaimdi gulup inŋa ikula tigure.

Tiŋa ᕧii wapum ukuk, be yopmang talik undugon ᕧehyeeninŋ hinek doktiŋa ᕧanai wabi tiŋa tigure. ᕧii wapum hinek ukuk dokti ᕧaim gineŋgineŋ inegenŋaŋ gagaayenŋ heebiyaakumuk. Yaliŋila ᕧendilik adi aŋŋ damo deikuk.
Καηη άηη adi yakaune atak a an wapum
nih buηa aimsu folon loiluune a a tooguk.
Toobuune endilik adi sukule tiηa imen a ginen
mafooguk.
Tiηa aηdok ihita kisan hinek timηa momon
tiηa mauguk.
Long dispela liklik pilai yu mas raitim sampela tokples i go insait long dispela bokis. Sampela tok i go stret na sampela tok i go daun. Yu yet lukim tok long tok pisin na yu raitim long tokples insait long bokis.

Tok i go stret:
1. asde
2. yelopela
3. liklik pisin i save wisil

Tok i go daun:
1. renbo
2. ren
3. grasop
4. waitpela kumul
Kahat youlawoọŋ qet hamap biŋat u du aa, ee, oo, ii, uu youleŋ. Mede nooli agoŋ tiŋat u kaŋ naadiwenŋ.

**Lesen 4**

**Gitom u Heneŋ**

Hel ee niŋ meniŋdi gitom kalŋ w____ tiŋa bunŋa hin____guk. K____ momolok niŋdi bunŋa kaŋ nin____diguk.

“Du d____ diŋ tiŋa gitom f____ mong____la bunŋa hinalŋ?”

276
Undug y____guk k____n indiñ ninguk, "Du wen, w____n imenqen n____n k____n sil____tnalu
sil____tnal____ nangalek k____n y____bu mongolen."

Undug nimb____ne adi w____n imenqen nij
k____n sil____tnalu sil____tnal____ kab____
kak____n tijá tawaune kumuná h____kuk.

Kedeem tijan ale kootigoñ kunaali naadiwen. 277
1. Bem foloŋ maŋ  ________ (baŋ, baŋ) yougolooguk.

2. Mihinaaŋgitdi me  ________ (siwe, siwee) tuguk.

3. Yot maŋ  ________ (wom, woom) gaaligut.


5. Daa hogok  ________ (une, uune) nu koobuk bit ale.
Du kudi i kunaali naadiña me yeendiniŋ foloon gineŋ məŋgon ḥakiiŋ u fek hamaaneune woŋ uŋgon youtawek. Kubugon agoŋ tįŋat.
Kunat kunat be youtyout agoŋ naadilaŋ doktiŋa komaaŋ ingoŋ kahatge youlenŋ.
Kedeem tilaŋ doktiŋa nookedok kunaali-mimbuu naadiwe.
Lesen 5

Numangonj mede ginej v neemu hatak. Tigaane kudi youfawoonj v naadina v mu youfwaaj adi indiig w. Mede i kunaali naadina youlenj.

<table>
<thead>
<tr>
<th>waagim</th>
<th>kawade</th>
</tr>
</thead>
<tbody>
<tr>
<td>wene</td>
<td>tawa</td>
</tr>
<tr>
<td>wom</td>
<td>hawom</td>
</tr>
<tr>
<td>wiwii</td>
<td>tuwai</td>
</tr>
</tbody>
</table>
Numaŋgoŋ mede gineŋ r neemu hatak. Tigaane kudi youtawoonŋ r naadiŋa r mu youtuwaŋ adi indiŋ l.
Mede i kunaali naadiŋa youlen:

lakata  pilap
loonggoŋ  talolo
lik  kunilit
lufoom  mulum

Numaŋgoŋ mede gineŋ j neemu hatak. Tigaane kudi youtawoonŋ j naadiŋa j mu youtuwaŋ adi indiŋ y.
Mede i kunaali naadiŋa youlen:

yaagit  kiyaane
yeyemenŋ  gagaaŋenŋ
yot  yuwoi
Mede komaarkade adi qeheyeeenj doktiŋa
dikidikii meebimeebinit u dobudobu tiŋa
moloomoloom yatneŋ. Nu agon talitimenŋ
tihamuŋa namba wan tugut.

tubu/didimeŋjak
tubumeekaguk
tubuhaulawek
tubuwalandalak

yeeŋ/kuk/laak
yeeŋkiliŋlitak
yeeŋindidime
yeeŋkadaŋkalak

yehi/kiu/kuk
yehitiulidokooguk
yehitubulodawaak
yehitubumiintagaambaak
(Wohoge

Numangong Mede

Yoobit       Toobit
Kunalit      Youlit

(Hinale wou)
Five-Day Lesson Plan: A Transfer Program
using the
Verandah Story Binders,
the Alphabet Books
and the Transfer Primer

The following lesson plan incorporates the Verandah Story Notebooks, the Alphabet Books, and the Transfer Primer into a simple five-day introductory class to be held for several hours each day. The learners enter the class with some proficiency in literacy in a second language, but little or no proficiency in the vernacular. Because of previous exposure to print, and because of the simplicity of the orthography (one sound to one symbol correspondence) the lessons move quickly. In trial classes, the young adult learners have assimilated the material with minimal exposure and by the end of the five lessons are writing short stories in Numanggang with a high degree of accuracy in spelling and with grammatical accuracy, even at the discourse level. The older adults moved through the lessons quickly, but had more difficulty in production, both in reading and in writing.

The lesson plan is tentative, as all elements of the program are subject to revision, correction, or rejection by the Numanggang. The plan reflects many of the components included by local teachers during the classes held in 1996. Other elements, such as devotional time using translated portions of the Bible and prayers and liturgy in the vernacular have been part of previous programs taught by Numanggang teachers, and would most likely be included as part of the curriculum in the future.
Sonda kubugonj woondok yoohebet—
woŋ adi metaam baagi mede agoŋ kunakunat tiŋŋ ingong Numangonj kunakunat tine tiŋŋ

<table>
<thead>
<tr>
<th>Melenai 1</th>
<th>Melenai 2</th>
<th>Melenai 3</th>
<th>Melenai 4</th>
<th>Melenai 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hinaledi taalitimŋ tiyeembuune kunakunat diniŋ talik naadidekeleneenŋ. Hinale adi kahat gitipmuhi Walanda diniŋ Kahat pepa gineŋ mu youkumunŋ hogok kunayembek.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Olaman! Tok Ples Bilong Mi i Swit Moa pepa gineŋ Lesen 1 titindok. | Lesen 2 | Lesen 3 | Lesen 4 | Lesen 5 |
| Olaman! wondinig wok pepa gineŋ Lesen 1 titindok. | Lesen 2 | Lesen 3 | Lesen 4 | Lesen 6 |
| A-O Kunat kitili pepa | M - G | T - L | H - Q | Kootigoŋ mede malabumunŋ tikaneŋ. |
| Kunat kitili kap tooyeembuune tooka tooka tineŋ. | Kunat kitili kap be kap nooli Numangoneŋ mede gineŋ tooneŋ |

Metaam moloomoloom Walanda diniŋ Kahat kunaka kunaka tineŋeŋ

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English Translation:

**Five-Day Lesson Plan for Literacy Transfer from Melanesian Pidgin to Numanggang**

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeled reading by the instructor using stories not currently published in the Veranda Story Notebooks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Transfer Primer  
  Lesson 1 | Lesson 2 | Lesson 3 | Lesson 4 | Lesson 5 |
| Transfer Primer Workbook  
  Lesson 1 | Lesson 2 | Lesson 3 | Lesson 4 | Lesson 5 |
| Alphabet Big Books  
  A-O  
  M - G  
  T - L  
  H - Q | | | | |
| Introduce Alphabet Song  
  Sing Alphabet Song and other Numanggang songs | | | | |
| Individual and small group reading of stories from the Verandah Story Notebooks | | | | |
Writing Together -
Instructions,
A Five-Day Writers' Workshop,
and The Authoring Cycle
Instructions

Upon completion of the five day transfer class (see Appendix A2.3 on page 220), students will bring their original story to a writers’ workshop to be held for a second five days. During these sessions, the stories will be edited by peers and revised by the author. Once satisfied with the composition, the author will submit it to the editing committee for final revision. The author will decide whether to illustrate the story personally or have a local artist illustrate it. Provision will be made for needed art materials such as pens and colored pencils. If possible, photography will be offered as an option.

The group will determine at the onset of the workshop who will be appointed to the editing committee and who will help in the illustration of the stories. Too often, the visiting literacy worker dictates the choice of editors and requires the authors to illustrate their own stories. The local people, who often live in close community are acutely aware who among them are gifted as leaders, capable editors, and gifted artists. In addition, traditional peoples are quite often more comfortable working interdependently in community and often value group accomplishment as opposed to individual achievement. Such is the case with the Numanggang.

The Five-Day Writers’ Workshop schedule on the next page is offered as a tentative schedule. Only crucial elements are included. Additional components of the schedule such as breaks, refreshments, devotions, singing, timing, etc. will be left to the discretion of the Numanggang.
## Sonda Kubugonj Mede Youkayouka dinj Yoohebet

<table>
<thead>
<tr>
<th>Melenai 1</th>
<th>Melenai 2</th>
<th>Melenai 3</th>
<th>Melenai 4</th>
<th>Melenai 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helema-helemañ noongon ila Walanda Kahat Pepa kunatnej. (Neebek niñ kunat kedeem tilakdi metaam noolidok taalitimen tubuune naadiga naadidaleneñ, be metaam lufoom, lufoom noongon ila kunatnej.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
English Translation:

**Five - Day Writers Workshop**

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
</tr>
</thead>
</table>
| Read together from the Verandah Story Notebooks  
(modeled reading by a fluent reader, in small groups or in pairs) |  |  |  |  |
| Discuss what makes a good story | Discuss proper punctuation | Discuss lengthened vowels and w, l, and y | Discuss and practice ways of attacking long words | Discuss ways of sharing stories with others |
| In a small group, share experiences and brainstorm for possible stories to write | In a small group, share stories and listen to suggestions | Work on final copy and submit stories to editing committee |  | Prepare story for publication and add to a Verandah Story Notebook |
| Individuals write their own stories | Individuals revise their stories | Discuss possibilities for illustrations |  | Work on illustrations. Demonstrations and instruction would be helpful |
|  |  |  |  |  | Celebrate! Read final stories together |

**********
Authoring Cycle

A simplified version of the authoring cycle, depicted in pictures (see pages 299-300), is offered as an aid for learners to follow while participating in a writers' workshop. The necessary steps from conception of a story through to celebration are included. The pictures, in laminated form, can be taped to a wall or in a visible place. The steps are as follows: think, write, share, re-write, edit, type, illustrate, celebrate.
Naadinaadi qaani tinej

Metaam woq adi kahat fee hinek naadigii be yoogiin be kunakiin ala weendok naadija maanqoon kahat u moomoom qoogtiiga pepa foloq youtne tiijit. Naadinaadihik tubukaikadok taalik fee. Lufoomkabe adi indii:

2. Me taam gawadaaj kahat moomoom qoogtiiga yohauta tilak neenoobu naadinej doktiija me taam u ninaadiune buqaa kahat moomoom yobuune naadinej.
5. Bop bop tiij yoonaadanaa kitubuloda tinej.

Youyoot tinej


Kitubuloda tinej

Unduuj tubudapmaaaj kahat moloomdi noomjuu yeedok kunat tiyeembu adi tubulodaan deediin deediin tiij qoogti kahat moomoom qoogti miintadakalewek nimbu naadiwek.
Komiti tubudidimenē
Unduŋ tubudapmaan agoŋ tubudidime komitidok yeembo adi maan
 tubudidimenē. Adi unduŋ tiŋa kahat moloom kootigōn mimbuune
 naadinaadihik mongola kahat kootigōn youlek.

Masin gineŋ youtneg
Kahat agoŋ moomoon hinek tilak doktiŋa masin gineŋ youtdok.
Sitensal be kompiliyuta folon youluuune Walanda Kahat Pepa gineŋ
tomboyoutdok. Be qet qeetniŋ noobu yakiŋ adi baigon hinek pepa folon
youtneg. Eeŋ kahat moloom naadibeedi noobu tibe adi neebek koohōŋ
kudutdi tubulodaan pepa folon youlek. Tiŋa weleweledok naadiŋa baŋam
tuwot biŋa youtneg.

Welewele youtneg
Agoŋ tuwot youkiŋ doktiŋa kahat moloomdi weleweledok naadiŋa
youlek. Weleweledok maan taliq fee hatnimilak doktiŋa weendok
yoonadiŋa mede yookiliŋa pepa hogoli folon timenŋ youtneg. Unduŋ
tubudapmaan agoŋ kahat foloon hinek folon youtneg.

Hinamuni tinėŋ
Ago! Kahat moomoon hinek tilak doktiŋa Walanda Pepa gineŋ boinenŋ
kaaŋ nohiyeedok kunakunaŋ tinęŋ.
English Translation:

Think

The adults you are teaching have had many experiences in life. They have told these experiences to others, often in the evenings on their verandas. Encourage them to think about one of these events that would make a good story. There are many ways to do this. The following are some possibilities:

1. Read stories others have written or tell a story about your own personal experience. This may remind them of an event in their lives.

2. Often, the students will know who is a skilled story teller in the area. Invite him/her to come to your class to tell a story.

3. Ask questions such as, “What was the funniest, happiest, or most frightening thing that has happened to you?”

4. Visual images often trigger memories. Keep a collection of culturally appropriate pictures or photographs for the students to peruse.

5. Have them brainstorm together in small groups or pairs to generate possibilities.

Write

Once the learners have decided on stories to write, have each one write a story. Encourage them to relax, worrying about conventions and laboring over spelling and punctuation at this point will hinder the natural flow of the story. Once the story is written, the author should then correct any obvious mistakes before going on to the next step.
Share

Have the author read the story to someone else or to a group of friends. The listeners should offer suggestions that could make the story more interesting or understandable.

Re-write

After listening to the advice of others, the author must re-write the story, trying to incorporate some of the suggestions offered by his/her peers and attempting to correct any mistakes in spelling and punctuation.

Edit

When the author has completed re-writing the story, it is given to the editor and the editor’s committee who will check the spelling, vowel length, and punctuation as well as the general discourse structure of the text. If necessary, the story should again be revised by the author.

Type

When the story is ready to prepare for addition to the binder, the text must either be typed on a typewriter or computer, or carefully handwritten on blank pieces of paper that will fit in the veranda story binder. If there is limited technology and the author does not feel comfortable writing, a scribe can be designated. The typist or scribe and the author must work closely together during this step in order to assure that appropriate space is allowed on each page for the illustrations the author desires to include.
Illustrate

Once the text is printed, the author may illustrate the story. Pictures that correspond to the text, designs around the edges, maps, charts, or anything else may be used that would aid in understanding the story or improving the appearance of the text. Initial rough drafts of the illustrations should be done on other paper, if necessary.

Celebrate!

The final copy of the story may now be added to the appropriate Verandah Story Binder and shared with others.
APPENDIX A2.7

**Samples of Illustrated Stories - Variations on a Theme**

This file is the beginning of a more comprehensive file to be gathered on site as the Numanggang people author and illustrate their stories. As new styles of lay-out and art are created, samples will be added to the file. The file will be used in future writers’ workshops as a resource. The current entry represents variations that could be used with one text. Four variations of artwork are offered: black and white line drawings, color pictures (using the line drawings), photographs of the author, and local decorative design.

The black and white line drawings were done by Mugalika of Tumun. Color was then added to the drawings as per evidence of color preference among new literates in the research literature. The third entry offers a photograph of the author rather than illustrations. (The photograph entry was suggested by Henoma Topo’ogo of the Morobe Province). The final variation is decorative design featured on Numanggang string bags.
Hinale diniŋ Yoodakele Mede


Taalik undihi pepa yeenŋ gineŋ mongoola boigut doktiŋa hidi pepa i kunakunat tiŋa taali yeen naadidakeledapmaanŋ metaam momoonŋ yehitubulodaneenŋ. Eeŋ metaam taali gitipmuŋ noobu naadinenŋ kaanŋ hidi taali momoonŋ undihi iŋgoŋ tomboyoula youtnenŋ.

English Translation:

Teacher’s Instructions

The stories that the Numanggang people write during the classes should be made ready to put into the Verandah Story Binders. Some of the authors will want to draw pictures. Others will want to illustrate them in different ways.

This file contains examples of ways to prepare their stories for the binders. As authors think of other ways of illustrating their stories, you may add them to this file.
Pupup Duut Gikahi-walan Kihat
Mupanu Salendi Youkuk

Heleenini baagi hungkinok tiña Pupup adi kadehik hatinñà yaugeene qatakhik niñ ulà buña kameen ila yoogiy. “Hidi, kudup kalìñ neñ woon bek kañ qatak i hinanim.” Unduñ yoogya mede ulati kuluu unamburtugug. Tiña yoogiy, yoogiy mooñ kañ Pupupdi unduñ ningiy.
Unduŋ nimbuune Pupupdi uɡuk. Woon yoqet gagaayen kaaguk be gilem mohinek ikiŋ. U kahake mede niŋgiŋ u kaule tiŋa gilemŋiŋ kinaŋ-kinaŋ haa tuguk.

Unduŋ tubuune nooliŋiyee adi deeti kudup pap mu ibi bulak yoo woomgiŋ. Unduŋ tiŋa woom haluu mele agong fofon tibe tubuune wabi kaipmuŋ doobunaŋ mowoogin.

Unduŋ tiŋa Gikahidi woon kaluguk, be Pupup adi gilem kinaŋ kinaŋ haati tuluguk. U kaŋ naadiune tuwot mu tubuune yooguk, "Kibibo waapmihiniyee miintaŋ beedibeediluune naa monggo naluwaat."
Unduŋ yooguk doktiŋa pupup mihiniŋ kubo tilak. Unduŋ doktiŋa nookeeyeedi neemek niŋ tibenŋ yoo gaanimbuune woonŋ neemek naadigaambuune tuwot mu tibaak. Be neemek niŋ tiqaambuune tubu-udaane mu titiŋdok.
Mede kahat unduŋ hogok.
Unduŋ nimbuune Pupupdi uguŋ. Woon yoqet gagaayenŋ kaaguk be gilem mohinek ikiŋ. U kahake mede niŋgiŋ u kaule tiŋa gilemŋiŋ kinaŋ-kinaŋ haa tuguk.

Unduŋ tubuune noolįiyee adi deeti kudup pap mu ibi bulak yoo woomgiŋ. Unduŋ tiŋa woom haluu mele agoŋ fofoŋ tibe tubuune wabi kaipmuŋ doobunaŋ mowoogiŋ.

Unduŋ tiŋa Gikahidi woon kaluguk, be Pupup adi gilem kinaŋ kinaŋ haati tuluguk. U kaŋ naadiune tuwot mu tubuune yooguk, “Kibibo waapmihiŋiyee miintaŋ beedibeediluune naa mongo naluwaat.”
Unduŋ yooguk doktiŋa pupup mihiniŋ kubo tilak. Unduŋ doktiŋa nookeeyeedi neemek niŋ tibenŋ yoo gaanimbuunue woonŋ neemek naadigaambuunue tuwot mu tibaak. Be neemek niŋ tigaambuunue tubu-udaane mu titiŋdok.

Mede kahat unduŋ hogok.

Undunŋ nimbuune Pupupdi uguŋ. Woon yoqet gagaayen kaaguk be gilem mohinek ikiŋ. U kahake mede ningiŋ u kaule tīna gilemniŋ kinan-kinan haa tuguk.
Unduŋ tubuune noolijiyye adi deeti kudup pap mu ibi bulak yoo woomgiŋ. Unduŋ tiŋa woom haluu mele agoŋ fofon tibe tubuune wabi kaipmuŋ doobunaŋ mowoogiŋ.

Unduŋ tiŋa Gikahidi woon kaluguk, be Pupup adi gilem kinaŋ kinaŋ haati tuluguk. U kaŋ naadiune tuwot mu tubuune yooguk, "Kibibo waapmihijiyye miintaŋ beedibeediluuune naa m̤onggo naluwaat."

Unduŋ yooguk doktiŋa pupup mihiniŋ kubo tilak. Unduŋ doktiŋa nookeeyeedi neemek niŋ tibeŋ yoo gaanimbuune woon neemek naadigaambuune tuwot mu tibaak. Be neemek niŋ tigaambuune tubu-udaane mu titiŋdok.

Mede kahat unduŋ hogok
Pupup Duut Gikahi-walaj Kahat
Mupanu Salendi Youkuk

Heleenin baagi hogohogok tiña Pupup adi kadehik haatiña yaugeene qatakhik niñ ula buña kameen ila yoogiñ. “Hidi, kudup kalin neen woon bek kaan qatak i hinanim.” Undun yoonña mede ulati kuluu unambunñat tuguk. Tiña yoogiñ, yoogiñ moon kaan Pupupdi undun niñgiñ.

Undun yimbuune Pupupdi ugu. Woon yoqet gagaayer kaaguk be gilem mohinek ikiñ. U kahake mede niñgiñ u kaule tiña gilemniñ kinañ-kinañ hañ tuguk.

Undun tubuune noolijiyee adi deeti kudup pap mu ibi bulak yoo woomgiñ. Undun tiña woom haluñ mele agoñ fofoñ tibe tubuune wabi kaipmuj doobunañ mowoogiñ.

Undun tiña Gikahidi woon kaluguk, be Pupup adi gilem kinañ kinañ haati tuluguk. U kaan naadiune tuwot mu tubuune yooguk, “Kibibo waapmihiñiyee miintañ beedibeediluune naa mọnggo naluwaat.”

Undun yooguk doktija pupup mihiniñ kubo tilak. Undun doktija nookeyeedi neemek niñ tiben yoo gaanimbuune woon neemek naadigaambuune tuwot mu tibaak. Be neemek niñ tigaambuune tubu-udaane mu titiñdok.

Mede kahat undun hogok.
Proposed Numanggang Literacy Survey and Assessment Packet for Adult Learners

All survey and assessment materials in this packet were developed with a desire for minimal intrusion. Only those assessments deemed necessary were included. Group sessions will not be used for assessment in literacy. Rather, surveys will be administered on an individual basis and reading and writing assessments will be given to students in need of extra attention. Information gained from these assessments will be used to help the student in one-on-one tutoring sessions – a traditionally acceptable choice. This packet, therefore, contains assessments to be used on an individual basis with adult learners. (Assessment 7 is administered in collaborative small groups and has been formulated this way to test the response to this type of strategy in the classroom).

Consistent with the philosophy of the necessity for instruction to be given only by other Numanggang, assessments, as well, will not be administered by expatriates. Trust must be built in their ownership of the entire process of learning to read and write, thereby combating the prevalent misconception that the “bombonggi” (white man) knows best.

The assessments will first be tested on a few adults, and then revised before using them on a large scale. More assessments will be added later to complete the packet. All assessments are in Numanggang. English translations of each assessment can be found on pages 333-340. The following assessments can be found in the packet:
Assessment 1 – Attitudes Concerning Reading: A Survey

Purpose: To assess attitudes toward reading among the Numanggang adults in order to adapt the literacy program to their needs and desires. Initially this survey will be done by the literacy supervisor to determine if there is a need to modify the curriculum for the adult transfer program. Later, this assessment can be used by the instructor as an individual measure of change in attitude toward reading.

Method: The survey will function as an open-ended questionnaire. The answers will be tape-recorded on a small, inconspicuous recorder and later transcribed and compiled.

Target Group: A sampling of individuals in most of the 32 Numanggang villages.

Assessment 2 – Attitudes Concerning Writing: A Survey

Purpose: To assess attitudes toward writing among the Numanggang adults in order to adapt the literacy program to their needs and desires. Initially this survey will be done by the literacy supervisor to determine if there is a need to modify the curriculum for the adult transfer program. Later, this assessment can be used by the instructor as an individual assessment of change in attitude toward writing.

Method: The survey will function as an open-ended questionnaire. The answers will be tape-recorded on a small, inconspicuous recorder and later transcribed and compiled.

Target Group: A sampling of individuals in most of the 32 Numanggang villages.

Assessment 3 – Recognition of the Sounds of the Alphabet: Alphabetical Order

Purpose: To assess whether or not a student has mastered the sounds of the letters in the Numanggang alphabet.

Method: The evaluator points to each letter and asks the student to say the sound the letter makes. Each correctly answered letter is checked.
Assessment 4 – Recognition of the Sounds of the Alphabet: Random Order

Purpose: To assess whether or not a student has mastered the sounds of the letters in the Numanggang alphabet.
Method: The evaluator points to each letter in random order and asks the student to say the sound the letter makes. Each correctly answered letter is checked.

Assessment 5 – Lengthened Vowel Assessment

Purpose: To assess whether or not a student can differentiate between short and long vowels.
Method: Sentences containing minimal pairs of words with short and long vowels are dictated.

Assessment 6 – Vowel Combinations Assessment

Purpose: To assess whether or not a student can hear vowel combinations and correctly spell words containing those combinations.
Method: The student reads sentences that have words containing vowel combinations. The student selects the correct spelling for the word.

Assessment 7 – W, L, and Y

Purpose: To assess whether or not a student understands the use of w, l, and y instead of v, r, and j (as used in the Kate language).
Method: Words containing w, l, and y (both initially and medially) are dictated to the student.

Assessment 8 – Word Segments

Purpose: To assess student’s ability to read long words correctly by recognizing morpheme segments and word roots.
Method: Have students divide long words into meaningful segments.
Assessment 9 – High Frequency Reading List

**Purpose:** To assess a student’s ability to recognize frequently used words.

**Method:** Cards containing one word each are shown to the student. If the student is able to read the word correctly it is marked on the evaluation paper.

Assessment 10 – Reading Log

**Purpose:** To provide a means for the student to record his/her reading.

**Method:** Student records the title of the book and chapter, and the date the selection was read.

Assessment 11 – Reading Log Self-Evaluation Form

**Purpose:** To help the student in self-evaluation. (Concentrates on comprehension strategies).

**Method:** Student records answers (Yes___ No___) on forms that are kept with the Reading Log.
Kameka 1 – Mede Kunakunat Wondok Deediŋ Naadiŋ

********************************************************************************
Wou__________________________________Melenaì________________________
Yooliqeeli__________________________Me be taam __________________________
Guletniŋ___________________________Hinale-walaŋ wou ______________________
********************************************************************************

Yoodakele mede: Timeŋ me be taam yenduut hogok ila mede hogok yoyo tidemek. Tubudapmaŋ mede kumaŋ kade yoonadi tiŋa mede meebi pepa foloŋ youlen.

Du kedeembe mede kunakunat tilaŋ?

Maŋgoŋ mede foloŋ?

Deeniŋ naadiguŋ?

Daŋgoŋ naadiguŋ?

Mede deedihi kunataŋ? (Nius, Gigitmede, pas be deediŋ)

Qanai deediŋdok taali nooli neemu haalu daa mede kunakunat taali foloŋ hogok tibe tiŋaŋ? (bop gineŋ, be Lae qetnenŋ be deediŋ)

Nookeye-walaŋ pas dutok youkambu daa be kunakunat tilaŋ?

Neeɗiyeeŋdi youkamiiŋ?

Nai fee binek?

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Deedīng naādilāŋ, kunakunat dinīŋ taalik moomoongon naadidok u neemek wapumgon by moon?________________________

________________________

Indi-walāŋ mede kunale tilāŋ be deedīŋ?________________________

________________________

Tiŋa indi-walāŋ mede folon kunakunat adi neemek wapumgon be deedīŋ naadilāŋ?________________________

________________________

Du adi mede kunakunat dinīŋ talik moomoongon be naadi tilāŋ be deedīŋ?

________________________

Pepa deedihi kunat tilāŋ?________________________

________________________

Pepa gineŋ welewle deedihi yabe tilāŋ?________________________

________________________

Pepa kunakunat tiŋa naadifo be tilāŋ?________________________

________________________

Hinale dinīŋ mede:
Kameka 2 – Mede Youyout Wondok Deediŋ Naadiiŋ

Wou _____________________________ Melenai _____________________________
Yooliqeeli ___________________________ Me be taam ___________________________
Guletnįŋ ____________________________ Hinali-walan wou ___________________________

**Yoodakele mede:** Timeŋ me be taam yenduut hogok ila mede hogok yoyo
tidemek. Tubudapmaŋ mede kumaŋkade yoonaad yinə mede meebi pepa
foloŋ youlen.

Du kedeembe pepa foloŋ mede youlen?

Mangonŋ mede gineŋ youlen?

Nai deeniŋ naadigunŋ?

Daŋonŋ naadigunŋ?

Mangonŋmangonŋ younte tineŋ?

Qanai deediŋdok adi taali nooli mu haal daa mede youyout hogok tilaŋ?
(Kopi qanai dok, Niew Sout Welis muneen yot weendok, gawaambop
wendok, yoqet diniŋ bop weendok, neemek nooli neeŋbe?)

Daa nookeyedok pas nooli neeŋbe youyeemulŋ be deediŋ?
Neeñ dok?____________________________________Nai fee binek?________________________
Deediiñ naadilañ, mede youyout diniñ taalik naadiwe tilan be deediñ?_______________________
______________________________________________________________
Qanai u moomoonqoñ titindok naadilañ be deediñ?______________________________
______________________________________________________________
Du aði mede youyout moomoonqoñ be tilan be deediñ?____________________________________
___________________________________________________________________________
Numanqoñ mede youle tilan be deediñ?___________________________________________
___________________________________________________________________________
Tiña Numanqoñ mede folon youyout aði neemek wapumqoñ be deediñ naadilañ?____________
___________________________________________________________________________
Mede youyout aði qanai moomoon be hogooli? Dutok deediñ naadilañ?____________________
___________________________________________________________________________
Hinale diniñ mede:
Kameka 3 – Kunat Kitili Dinij Koodi Kanaadi Dinij Kameka

Wou________________________________ Melenai________________________________
Yooliqeeli________________________________ Me be taam________________________________
Guleti________________________________ Hinali-walanj wou________________________________

Yoodakale Mede: Hinaledi kitili moloomoloom youlu me be taam adi wou yoobuune bogit ginenj fek youlek.

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Kameka 4 – Kunat Kitili Diniñ Koodi Kanaadi Diniñ Kameka
(Hogohogok Youkumun)

**********************************************
Wou_________________________________Melenai_________________________________
Yooliqeeli____________________________Me be taam________________________________
Guleññįj_____________________________Hinali-walañ wou_________________________________

**********************************************

Yoodakale Mede: Hinaledi kitili moloomoloom youlu me be taam adi wou yoobuune bogit ginen fek youlek.

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Qanai Yeedinä Tubuloda Mede

1. Pepayot metaam yehitubulodaune adi wouhik gineŋ kunat kitili kanaadinenŋ.

2. Metaam yehitubulodaune kahat pepa gineŋ kunat kitili kanaadiŋa yoonenŋ. Qanai i moloomoloom be bop gineŋ tineŋ.


Kameka 5 – Mede Yoohamaane Diniŋ Kameka

********************************************
Wou______________________________________Melenai
Yooleeqeeleli____________________________Me be taam
GuletqiQ______________________________Hinali-walan wou
********************************************

Yooodakale Mede:

Timeŋ adi indiŋ yoonaadidemek. Mede nooli yoohamaane taam, een
nooli hogok yooyaam. Ale indiŋ yooyaam: Heleen tideemek, een tebele
tidemek. Heleen dok naadiŋa mede hamaane taam – tideemek. Een koobuk
dok naadiŋa mede hogok yooyaam – tidemek.

Unduŋ yoonaadidapmaanŋ mede kumaŋkade i yoobune me be taam
adi naadiwek. Mede nooli feknjyt youkut adi indinŋoŋ. Mede woŋ adi du me
be taam nimbune adi u kanaadiwek.

Baŋ adi me momoonŋ hinek.                  Konkoŋ kabot mundi tilak.
Pupup upaŋ u kobaŋŋ hinek.                  Mundii haabunga naadifo tilak.
Agoŋ bulat ale une.                       Too sewe tiŋa miik tugumuk.
Wom koobugonŋ gaaalimun.                  Taam folonŋ u bitakaŋ.
Iŋgonŋ woonggaamuut.                      Adi folonŋ looguk.

Qanai Yeendiniŋ Tubuloda Mede
1. Pepayot ikinŋ heeki adi wanakaŋ naadinaadi tiŋa mede yoohamaane taam
   u naadiŋa tafe folonŋ youtneŋ.
2. Kahat nooli kunakunat taam u maaneŋ loholohi tiŋa mede yoohamaane
   taam undihi yoonaadinenŋ.
3. Me bop moloomoloom tiŋa mede indihi noolinooli gineŋ naadiŋa pepa
   folonŋ youtneŋ.
Kameka 6 – A, E, O, I, U Tomboyou Diniŋ Kameka

*****************************************************
Wou_________________________________Melenaι____________________

Yooliŋeeli____________________________Me be taam__________________

Guletŋiŋ________________________Hinali-walŋ wou__________________

*****************************************************

Yoodakale mede: Mede kumaŋkade youkut u pepayot me be taamdok kusalu tafe foleŋ youlek. Youla mede mu youkut adi fekiŋt indiŋ______ adi nee naadiŋa youlek. Unduŋ tubudapmau nŋonoŋ yoonaadidemek.

1. Me i qetqet yaŋa me yehitubulodaŋ miik tiyaune agoŋ naadimindapmaŋ.

2. Unduŋ doktiŋa gigit medeene yeendigoŋ weleen tubutekeleune nu-walan qanai tibaak.

3. Koom qaha Simbaŋhi Gigitmede tiŋa bugiŋ, adi buŋa Yoboŋ uŋonoŋ yot maŋ ila koŋkoŋ uŋonoŋ tububihilaŋa yeetigŋ.

4. Indi Bepaŋ niutumba taneem.

5. Koŋkoŋdi kedoem bop u kadokoune moomoŋ haati woon naiŋŋ ginenŋ dapmalak.

6. Heleenŋ me kuyahi mohok tout dobunee Guabude ugumun.
1. Nai tuwaune woon sumatin guut ila kahat nongo kunatnaadija a, e, o, i, u tomoboyoutnit diwekaaŋ youlek. Be a,e,o,i,u, mooolomgoŋ, be nooli katap daabugon youkaam u woon pepa yaabunja folon youlek. Undun tiŋa nongo kunaliŋila koodihik baigoŋ naadidemek.

2. Pepayot me be taam nimbu kahat gitipmuŋ kunali mede gitipmuŋ neemu kunaaelek u diwe kaŋ pepa folon youlek. Mede gitipmuŋ adi a,e,o,i,u tomoboyoutnit woondok diwe tibetik.

3. Pepayot me be taam u mede kubuŋu kubuŋu nimbu koodi naadiŋa gaanimbek adi a be e be o be i be u tiŋa adi tomoboyoutnit be tomoboyoutnit mookit, u ganimbu naadiwen.
Yoodakale mede:


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Yoodakale Mede Dinii Meebii

1. Metaam yeenimbu nehi-walan Simbaan miti pepa ginek kaan Luka een Aposolo guut kameka tinek. Undun tiiga v, r, een j Miti ginek yabuña Luka een Aposolo pepa ginek w, l, y yabuña kamekanen.

2. Bop moloomoloom adi naadinaadi qanai indin tinek. Numangone neenoobu w, l, be y guut youkaam u naadina tafehik foloonj youtneen. Tubudapmaan bop nooliguut kiyonaadi tiiga tafe wapum folonj youtneen.

**Yodakale Mede:** Metaam yeenimbu mede kumaŋkade i dikidikii meebinit youdobudobu tineŋ. Timențimenŋ adi agonŋ tugut.

niŋ/gut

* Qanai Yeediniŋ Tubuloda Mede

1. Mede dikidikii meebinit u pepa folonŋ moloomoloom youlenŋ. Agonŋ me be taamguut ila pepa u tomboyoula mede folonŋ tubumiintademek. Unduŋ tìŋila indiŋ nimbeŋ: “Mede dikii hogok leŋŋonŋ yoyaam u mede meebi heekilak. Dikii hogok u mu naadiweŋ adi mede meebi mu naadidakaleweŋ.”

    yezi + tubu + kaika + waak
    yezi + tubu + kadaka + waak

2. Mede qeheyehi adi malabumunŋonŋ doktiŋa mede yamanŋonŋ youkiŋ u kunalu gehitubulodaune mede qeheyeeniŋ u naadidakaleweŋ. Adi indiŋ:

    Kamo kadakaaniŋ diniiŋ kahat adi pupuup kaunŋ diniiŋ kiliki wendok yoolak kaŋ mede qeheyeeniŋ indiŋ kawen: yeziŋkumunguk.
    Kamo momoonŋ diniiŋ kahat adi kohip wendok yoolak kaŋ mede qeheyeeniŋ indiŋ kawen: yeziŋkumunguk.
Kameka 9 – Mede Hogooli Helema-heleman Yooyaam dining Lisita


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Qanai Yeendinii Tubuloda Mede

1. Pepayot me be taam nimbu 10 minit wondok tuwot naadinaadi tiña fek pepa folon youlek. Tiña neemek youtdok qanai miin binek tubuu mede lufoomkabe indihi tubulodaan nimbu naadiña youlek "moŋ..." Qanai u tubudapmaune nongoo ila adi mede Mede Moloomoloom Fee Yooyaam Woondinia Kunakunat Lisita folon maŋ diwekaaŋ naadiwek.

2. Sumatendi kahat nin qunadapmau indiŋ nimbu naadiwek. Mede wot adi kahat ginen kunaatneŋ u baigoo naadiña pepa folon ingoŋ youlen.

3. Pepayot heeki duut indiŋ tibęŋ. Mede wot adi lisita folon kiin u tafe folon youlu pepayot me be taam adi kedeem yaabuŋa naadineŋ.

4. Pepayot me be taam duut nongoo ila kahat kunali mede nooli fee youkiŋ be yooyaam u nongoo yoonaadidemek.

Kameka 10 – Gigitmede Deedia Kunat Tilaŋ

Wotne


Gigitmede Pepa wou tiŋa Fiyee namba
Melenai

Gigitmede Pepa wou tiŋa Fiyee namba
Melenai

Gigitmede Pepa wou tiŋa Fiyee namba
Melenai

Gigitmede Pepa wou tiŋa Fiyee namba
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Gigitmede Pepa wou tiŋa Fiyee namba
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Gigitmede Pepa wou tiŋa Fiyee namba
Melenai

Gigitmede Pepa wou tiŋa Fiyee namba
Melenai

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Kameka 11 – Gigitmede Kunakunat Wondok Daa-walaŋ Kameka

********************************************************************************************
Wotne

Pepa tiŋa Fiye Melenai

********************************************************************************************

1. Timen nu adi fiye dinŋ mede meebii hogohogok kunali naadinat.
Een____Moon____

2. Nu adi kahat yeendiniŋ deediŋ agoŋ naadigut u ila naadinaadi
tubudapmaanŋ tububihilat. Een____Moon____

Een____Moon____

4. Neemek mede mu naadidakeleenat u kootiŋŋ kunalat.
Een____Moon____

5. Nemeneemek kunalat u naadinaadine ginenŋ kalat weendok naadina fooloŋ
u deediŋ hinek naadina lihine naabugon tiŋat. Een____Moon____

6. Neemek mede mu naadidakaleenat u neebek naadilak ninaadiweg
naanindidimenąak. Een____Moon____

7. Mede kunalat u Gigitmede guut tąmboyolu naadinaadine beedıŋa hataŋ.
Een____Moon____
English Translations of Numanggang Assessments
Assessment 1 – Attitudes Concerning Reading: A Survey

Directions: Once rapport has been built with the person to be interviewed, ask the following questions, allowing time to think, process, and respond. Prompt the adult with additional questions, and ask for explanations and examples.

*****************************************************************************
Name of adult ___________________________ Date _______________________
Village where the adult lives ______________________ Gender _____________
Approximate age ______ Name of Interviewer __________________________________
*****************************************************************************
Do you know how to read?
When did you learn how to read?
Where did you learn how to read?
What type of things do you read?
Is there any reason you are ever required to read? (business, banking, church meetings, village meetings, etc?)
On what occasions?
Do you ever read personal letters from people who live outside of the village?
If yes, from whom?
How often?
Do you think it’s important to be a good reader?
Why/why not?
Do you think it is important to be able to read in Numanggang?
Why/why not?
Do you think you are a good reader?
Why/why not?
What kinds of books and papers would you like to read?
What types of pictures do you like in books?
Do you enjoy reading?
Why/why not?
Additional comments:

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Assessment 2 – Attitudes Concerning Writing: A Survey

Directions: Once rapport has been built with the person to be interviewed, ask the following questions, allowing time to think, process, and respond. Prompt the adult with additional questions, and ask for explanations and examples.

********************************************************************************************************
Name of adult _______________________________ Date __________________
Village where the adult lives ___________________ Gender __________________
Approximate age ______ Name of Interviewer __________________________

********************************************************************************************************

Do you know how to write?
If yes, in what language/languages?
When did you learn how to write?
Where did you learn how to write?
What type of things do you write?
Is there any reason you are ever required to write? (business, banking, church meetings, village meetings, etc?)
On what occasions?
Do you ever write personal letters to people who live outside of the village?
If yes, to whom?
How often?
Do you think it’s important to be a good writer?
Why/why not?
Do you consider yourself a good writer?
Why/why not?
Do you think it is important to be able to write in Numanggang?
Why/why not?
Do you enjoy writing?
Why/why not?

Additional comments:
Assessment 3 – Recognition of the Sounds of the Alphabet: Alphabetical Order

Name of adult ___________________________ Date ___________________________
Village where the adult lives ____________________ Gender _______________________
Approximate age _______ Name of Interviewer __________________________________

Directions: The teacher should write each letter of the alphabet. If the student can say the sound of that letter, then the teacher will record it in the correct box.

Assessment 4 – Recognition of the Sounds of the Alphabet: Random Order

Name of adult ___________________________ Date ___________________________
Village where the adult lives ____________________ Gender _______________________
Approximate age _______ Name of Interviewer __________________________________

Directions: The teacher should write each letter of the alphabet. If the student can say the sound of that letter, then the teacher will record it in the correct box.

Instructional Implications for Alphabet Sound Recognition Assessments:

1. Have the students recognize the letters of the alphabet in their names.
2. Have the students look for the letters of the alphabet in literature used in the classroom. This work can be done either individually or in groups.
3. Have the students try writing the letters of the alphabet on the ground using a stick.
4. Have the students join the letters of the alphabet together to form words.
5. Have the students sing the alphabet song and write the letters of the alphabet as they sing them. Playing the drum along with the song encourages the students’ enthusiasm.
Assessment 5 – Lengthened Vowel Assessment

Name of adult ____________________________ Date ____________________________
Village where the adult lives ____________________________ Gender ____________________________
Approximate age ______ Name of Interviewer ____________________________

Directions:
Discuss together the difference between single vowels and lengthened vowels. Dictate the following sentences to the class or to an individual. Even though there are other lengthened vowels in some of the sentences, concentrate on the underlined words in which a long or short vowel changes the meaning.

(See Numanggang assessment form)

Instructional Implications for Lengthened Vowel Assessment

1. As a class, think of words with lengthened vowels and write them on the board.
2. Find lengthened vowels in stories and in other materials.
3. Divide into groups. Each group choses a scribe. Together the group writes as many words containing lengthened vowels as they can remember.

Assessment 6 – Vowel Combinations Assessment

Name of adult ____________________________ Date ____________________________
Village where the adult lives ____________________________ Gender ____________________________
Approximate age ______ Name of Interviewer ____________________________

Directions: Dictate the following sentences to the student. Re-read the underlined words and have the student write them. When the assessment is complete, discuss the answers together.

(See Numanggang assessment form).
Instructional Implications for Vowel Combinations Assessment

1. Spend time with the student looking at text, finding vowel combinations, single vowels, and lengthened vowels. Read the word together, listening to the different sounds.

2. Have the student read new text, finding new words with vowel combinations and compiling a list.

3. Say words to the student with various vowel combinations and have them tell you what vowels are in the word.

Assessment 7 – W, L, and Y Assessment

Indications: Group Assessment (Could also be administered individually)
Directions:
Remember -- there is no v, r, or j in Numanggang as there is in Kate. In Numanggang, we use w instead of v, I instead of r, and y instead of j.

Have the class form small groups. Dictate the following words and have them collaborate to determine the correct spelling. After each word is written by the groups, write the word on the blackboard and pronounce it together. (The letters that are often confused are underlined for you).

(See Numanggang assessment form)

Instructional Implications for the W, L, and Y Assessment

1. Have the students look at their Kate Bible and then compare it with the Numanggang Scripture. Have them look for v, r and j in the Kate Bible and w, I, and y in the Numanggang Scripture.

2. Have small groups think of as many Numanggang words as they can that contain w, l, and y, writing them on their small blackboards. Then compare the words with the entire group, and write them on the class blackboard.

3. Discuss the fact that for names of people and places in the Bible that begin with the Y sound, the translators have decided to use the letter J.
Assessment 8 – Word Segment Assessment

Directions: Have the student divide the underlined words into meaningful segments. The first one is done for you.

(See Numanggang assessment form)

Instructional Implications for the Word Segment Assessment

1. Put meaningful word segments on cards. Working with the student, make words out of the segments. Show the student that by changing one of the segments in the word, the meaning of the word is changed.

2. Help the student to use context clues as they read long words. Point out that it is sometimes necessary to look at the middle of the word in order to determine the meaning.

Assessment 9 – High Frequency Reading List

*************************************************************************

Name of adult ___________________________ Date ___________________________
Village where the adult lives ________________ Gender ________________
Approximate age __________ Name of Interviewer __________________________

*************************************************************************

Directions: Before giving this assessment, put each word on a card. Show one card at a time to the student. Put a mark on the line after the word if the student knows the word.

(See Numanggang assessment form)

Instructional Implications for High Frequency Reading List

1. Have student write as many words as he/she can in ten minutes. If the student has difficulty getting started, suggest some simple words such as man, bem, lik, yot, dum, etc. After the student is finished, look at the words together and help the student correct the spelling by attempting to find the words on the High Frequency Reading List.
2. After reading a story, have the student write as many words as he/she can remember from the story.

3. Create word walls together.

4. Examine a text together for frequently used words.

5. Encourage the students to try writing words before you simply give them answers. If they attempt spelling the words on their own, then correct themselves, they will be more likely to remember how to spell the word the next time.

Assessment 10 – Reading Log

Name

Directions: Every time you read a chapter of one of the books in the New Testament, record it on this paper. Then write about it on the Reading Log Self-Evaluation Form.

Book and Chapter Date

Assessment 11 – Reading Log Self-Evaluation Form

Name

Book and Chapter Date

1. I previewed the chapter by reading the section headings. Yes No

2. I thought about what I already knew about this book before I started reading the chapter. Yes No

3. As I was reading I made predictions about what I thought would happen next. Yes No

4. I re-read if I didn’t understand. Yes No

5. I made pictures in my mind of what I was reading. Yes No

6. I asked someone to explain to me the parts I did not understand. Yes No

7. I thought about what I read and added it to what I already know about this book. Yes No
Map of Papua New Guinea. (Adapted from the Papua New Guinea embassy home page at http://diamondhead.net/map.htm).
Appendix D

Faceless Outline Drawing
Detailed Black-and-white Drawing
Detailed Black-and-white Drawing with Watercolor Wash
Black-and-white Photograph
Appendix E

Initial File of Numanggang Art

Appendix E

Numanggang Art
Bark Cloth Design

String Bag Design

String Bag Design
Pig Tusk Necklace

Worn by Leaders
APPENDIX F

Color Test

Test for Color Choice in Literacy Materials
(This test could also be used in discovering linguistic categories of color)

Instructions: This test is to be administered on an individual basis in a supportive environment. (If the culture is a consensus-based society, the test can be administered in a group setting).

Procedure: Present colors 1-68 on pages 353-355. Ask which color/colors would be preferred for:

1) Book covers:
   a) Binders for the various categories of Verandah Story Binders
   b) Books for adults
   c) Books for children
   d) The Bible
   e) Song Book
   f) The Liturgy

2) Paper used in the Verandah Story Binders stories

3) Paper used for notices
APPENDIX G

Sources for
Research on Picture Perception in
Traditional Areas of the World

Afrolit Society
P.O. Box 72511
Nairobi, Kenya

Association for Educational
Communications and Technology
1126 16th St., N.W.
Washington, DC 20036, USA

Center for International Education
School of Education
Hills House South
University of Massachusetts
Amherst, MA 01300, USA

Centre for the Study of Education
in Changing Societies
Badhuisweg 251, P.O. Box 90734
2509 LS The Hague
The Netherlands

Education Broadcasting International
(EBI Journal)
British Council
Tavistock House South
Tavistock Square
London WC1H 9LL, England

The Ford Foundation
International Division
320 East 43rd Street
New York, NY 10017, USA

Lesotho Distance
Teaching Centre
P.O. Box MS 781
Maseru, Lesotho

Read Magazine
Summer Institute of Linguistics
Ukarumpa via Lae, EHP
Papua New Guinea

UNESCO
7 Place de Fontenoy
75700 Paris, France

UNICEF
P.O. Box 44145
Nairobi, Kenya or
P.O. Box 1187
Katmandu, Nepal

Elgin, IL: David C. Cook Foundation

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REFERENCES


Cunningham, P. M. (1996). What kind of phonics instruction will we have? In R. D. Robinson, M. C. McKenna, & J. M. Wedman (Eds.), Issues and trends in in literacy education (pp. 76-90).


Wendell, M. M. (1997). *Bootstrap literature: Preliterate societies do it themselves*. LinguaLinks. Available E-mail: Literacy@sil.org

