

Developing Early Reading Assessments in First Languages: Lessons from the Pacific

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1. Introduction

A firm foundation in reading provides students the potential for lifelong learning in a variety of disciplines. According to Lyon (1998), reading serves as the critical foundational skill for all school-based learning. Without it, opportunities for academic and occupational success are limited. Current research indicates that children who do not learn the basics of early reading are unlikely to learn them at all (Moats, 1994). A crucial component of learning to read is employing effective assessment tools for both formative and summative purposes. However, if there are no effective assessment instruments to aid in reading pedagogy, then all efforts are naught. This is the case with a majority of the classrooms in the Federated States of Micronesia (FSM). The construction of a Pacific language reading assessment is one of the many necessary steps needed to address the low rates of literacy among Micronesian students. How then does one go about creating an instrument designed to assess the early reading skills of Micronesian children?

1.1. Background of the study

The necessity for the development of such an instrument was brought to the attention of Pacific Resources for Education and Learning (PREL) researchers a few years ago, at the onset of the Pacific Language Use in Schools (PLUS) study (PREL, 2000). The PLUS study sought to identify the classroom language-use patterns and instructional approaches in Pacific region schools. The study was a regional research endeavor designed to answer the question “Do classroom language use and instructional practices influence students’ literacy development?” As a part of the study, teachers in the Pacific were asked whether or not they knew explicitly the vernacular reading abilities of their students. In just about every entity (excluding Hawai‘i), a resounding “no” was the answer. However, many did report that they just assumed that the students could read in the vernacular since it was, after all, the language used at home. In fact, aside from Kosrae State, there are no standardized reading tests in existence for the native languages in each FSM state. A review of existing studies of reading assessments in other alphabetic and regularly spelled languages resulted in a dearth of information in such languages. The research conducted by Alcock et al. (2000) postulates that this paucity in standardized tests is a result of the general underserving of non-English speaking populations by standardized test developers. They further state that it may also stem from a slightly more systemic cause: reading assessment tools used in English and other irregularly spelled languages are, by definition, not suitable for regularly spelled languages. The Micronesian languages are considered regularly spelled languages, thus possibly explaining the lack of reading assessments in any of the native languages.

1.2. Micronesian teacher factors/background

Adopted from the American system of education, the public education system in the FSM highly differs in several ways. In terms of teaching, there are three components of the structure for teachers: the teacher certification policy, the Territorial Teacher Training Assistance Program (TTTAP), and the teacher training institution (College of Micronesia-FSM). At the FSM government level, a

coordinating board does not govern teacher training; the welfare of teachers beyond TTTAP is left unaccounted for, and beyond the basic requirements for certification, there are no regulations, code of ethics, or standards governing the performance, behavior, and career progression of teachers (Asian Development Bank, 1995).

The minimum certification requirement for teachers is an associate’s degree in either the arts or sciences (AA or AS) typically acquired from the College of Micronesia-FSM. For the purposes of certifications, there is no requirement for methodological content in these degrees and there are no restrictions in the areas that these degrees should be attained. Mere possession of an AA or AS degree is the basic qualification for teaching at any level. In some FSM states, however, the possession of a high school diploma is enough qualification for a teaching position. It is common for local high school graduates to go directly into teaching upon graduation. By any standard, they are not qualified or equipped to be in the classroom. As a result, concerns are expressed about the ability to meet contemporary educational challenges. The following table, based on a representative sample from PREL (1998), provides an overview of the distribution of formal teacher training among the FSM.

*Table 1.
Percentage of Formal Teacher Training in the Federated States of Micronesia*

State	HS	AA	BA+
Chuuk	18.0%	48.0%	23.5%
Kosrae	15.0%	59.0%	18.0%
Pohnpei	10.0%	37.0%	44.0%
Yap	42.0%	34.0%	13.0%

1.3. Teaching practices in Micronesia

Research on the teaching practices of Micronesian teachers is limited. What does exist are descriptive studies conducted by various Pacific interest organizations and local programs. Additionally, the authors have compiled a substantial amount of data based on personal observations and experience that can be used to authenticate claims.

In a language use study of several different Pacific schools conducted by PREL (2000), results of numerous classroom observations and videotaping showed that a majority of classroom teachers utilized the choral strategy while teaching to the whole class. For example, many of the lessons revolved around choral sentence modeling where the teacher initially said a sentence and the students repeated it. Most of the lessons were formatted for whole class instruction with very little individual or small group activities. Individual participation typically involved copying words and sentences from the board. In some states, classroom management skills were lacking, with students coming and going as they pleased, excessive classroom chatter, and general inattentiveness.

The appearance of a school campus also seems to be an indicator of a quality school. Campus cleanliness suggests a high degree of community involvement and a sense of ownership of the school. Factors such as average student-teacher ratio, percentage of teachers with full accreditation, and quality and quantity of textbooks seem to have little bearing on school performance (Hezel, 2001; Johnson, 2000). However, these seemingly “non-factors” point to the resourcefulness of teachers regardless of education level, student-teacher ratio, and availability of materials. This resourcefulness translates into educational opportunities for students to pursue education beyond the required elementary level. The following table, based on the *1994 FSM Census* (FSM Office of Planning and Statistics, 1994), illustrates the educational attainment levels of FSM students.

Table 2.
Educational Attainment in the FSM

Attainment Level	Percentage
No school	22.8%
Some elementary	30.3%
Some high school	15.1%
High school diploma	13.6%
Some college	07.5%
Associate's degree	06.1%
Bachelor's degree	03.1%
Graduate study	01.6%

The number of students who receive a high school diploma highlights the importance of early reading assessment used for instructional purposes.

1.4. What assessment methods take place currently in Micronesia?

Consistent data within Micronesia is difficult to obtain. What is available, however, portrays a disturbing pattern of decreasing reading comprehension. For example, of sixth grade students who took a standardized reading test, only 58% could read at a first grade level. The percentage declined as the reading level increased. Only 22% of the same sixth grade cohort could read at the sixth grade level. Essentially, almost 80% of sixth graders were not reading at grade level (Micronesian Language Institute of the University of Guam, 1995).

The fact that Micronesian students do not fare well on English language reading tests is not surprising. Their home language as well as the language of the school is not English. While English language instruction is supposed to be introduced from grade 3, the majority of lessons are conducted in the native language using outdated English textbooks (if available). To further complicate this situation is the lack of students' reading abilities in their own language. Test scores demonstrate this quandary.

Results obtained from the National Standardized Test-Language Arts for years 1995-1997 show scores in grades 6, 8, and 10. The following table provides the average score by percentage.

Table 3.
FSM National Standardized Test-Language Arts, 1995-1997

Grade	Yap	Pohnpei	Kosrae	Chuuk
6	50%	53%	58%	34%*
8	53%	60%	63%	--
10	63%	64%	74%	53%*

*Results based on 1995 test only.

Although the scores indicate a rising trend in terms of percentage points, the numbers themselves are at the lower end of the scale (Micronesian Seminar, 2001).

The test results illustrated above are in the English language. It is important to reiterate that there are no standardized tests that exist in the vernacular. What may exist are classroom teacher-made tests.

However, from observations and experience this is highly unlikely, except for Kosrae State, where a second grade Kosraean language reading test is administered and used for summative purposes.

Attempts to address low reading performance in the Pacific region have been quite different in terms of strategies due to the position of English as a second or even foreign language. In the late 1960s, the Trust Territory of the Pacific Islands adopted the Tate Oral English syllabus, developed by the South Pacific Commission. The accompanying reading series was the *Miami Linguistic Readers*, a set of phonetically controlled readers. These two programs remained in use until the mid-1980s. By then, still few students had developed adequate reading skills and content knowledge to enter higher education.

Since the 1980s, commercial language arts programs have been seen as the guiding force to solve the problem of poor reading achievement. Texts prepared for continental U.S. American school systems were purchased but have proven too difficult for teachers to use and students to learn from. The belief that immersion in English texts parallels immersion in an English language environment has not come to fruition as evidenced by test scores. What can be confirmed is that the language environment remains that of the community, and the English language of texts remains inaccessible. Teachers make efforts to explain texts in the students' local language and then read them in English for the students to repeat back in rote recitation (*Regional Educational Laboratory Proposal*, 2000). This strategy does not employ the necessary basic reading skills or provide for content and context.

It is estimated that more than 30 languages are currently in use in Hawai'i and the U.S.-affiliated Pacific region. This assortment of language environments leads to educational policies and more importantly, practices that vary immensely. For example, in some classrooms, English is the sole medium of instruction. In other classrooms, the local language might be the medium of instruction, and English is taught as a foreign or second language. In places such as the FSM, various dialects exist that may not necessarily constitute the local language. The desire to learn English while simultaneously learning the local language is often seen as conflicting. However, the literature emphasizes the importance of first language literacy proficiency as a fundamental piece of acquiring English literacy.

An abundance of current educational research on the instruction of English language learners supports the use of students' first language in school (August & Hakuta, 1997; Collier, 1992; Ramirez, Pasta, Yuen, Ramey, & Billings, 1991; Thomas & Collier, 1995). Tharp and Gallimore (1988) emphasize, "If children are not familiar with the language that they are asked to read, if they are unfamiliar with the network of word meanings, if they are unfamiliar with the way that words modify and relate to each other, then learning to decode print in that language will be difficult, and an understanding of what has been decoded will be virtually impossible. Language and literacy are Siamese twins with one heart" (p. 104).

An educational study of the FSM commissioned by the Asian Development Bank (1995) cited many of the problems in schools as stemming from lack of curriculum materials, poor instructional methods, defective educational policies, and other such things. Hezel (1998) adds that it is the management and the administration practices of a school that determines the quality. He contends, "Well managed schools produce fine educational results, regardless of what textbooks they use and the age at which they begin English instruction" (p. 1). Whether it is personnel problems or physical limitations, these factors combined result in poor test scores.

1.5. Purpose of the test

The initial purpose of the assessment was to collect native language reading/literacy data on elementary students in Pacific classrooms for a previous research endeavor (PLUS study). However, after conversations with Pacific educators and further investigations, the need for this type of reading assessment became apparent. Therefore, there were several reasons the need for this test arose: 1) its use as an instrument to collect data on Pacific students' first language reading proficiency; 2) its use as an assessment tool to inform classroom instruction in Pacific classrooms; 3) there were no other first language reading tests developed or available in the Pacific languages – in fact, according to Spencer (1992), very little research has been done in Micronesia on literacy achieved in the first language; and

4) teachers in the Pacific did not have specific information about their students' native language reading abilities.

Once the assessment is developed in targeted Pacific languages, the subsequent results are intended for use as pre- and post-test information for research purposes and more importantly, classroom teacher instructional data. The assessment should allow teachers to pinpoint student areas of strengths as well as limitations; this information provides the teacher with a better understanding of his/her students as well as areas of instructional deficits. Therefore, the assessment needs to yield general information that will serve both research and teacher interests.

2. Test content

Based on the review of the literature, the assessment template was composed of the following subsections:

2.1. Sound/Symbol correspondence

In this portion students identify the letter or letters that represent the initial consonant sound(s) of each word that the teacher reads aloud. For example, the teacher will first say, "kite, [pause for 3 seconds], kite." The students are expected to circle the letter that makes the "kuh" sound; in this case, the letter "k" should be circled.

2.2. Word reading/recognition

In this portion students look at a picture of a familiar object and circle the correct word from a list of four words. The list contains the correct response as well as three other "distractor" words that may be spelled similarly but do not have the same meaning. For example, next to a picture of a pig are the four choices: pit, dig, big, pig. All the words look similar to the target word ("pig"). Students must be able to read and recognize the corresponding word and match it to the picture.

2.3. Reading comprehension

This subtest employs the cloze procedure. Students read a paragraph or short story in which words are omitted and substituted with a blank line. Based on the context or on previous information in the story, students write a word that correctly fills in the blank.

Each of these skills plays a critical role in the early process of learning to read. Students need to master all of these skills to become proficient readers. A detailed description of each component will be discussed in the following section, Test Format.

3. Test format

For the phonemic awareness and word reading sections, the format is multiple choice. According to Gronlund (1993), multiple-choice items are the most widely used and highly regarded among the selection-type of items for test development. They can be designed to measure various learning outcomes ranging from simple to complex, and they offer the highest quality items. The third section, reading comprehension using the cloze procedure, is presented in a fill-in-the-blank format. This allows for the needed group administration as well as time saving efforts.

Several commercially available tests such as the Hawai'i version of the Stanford Achievement Test (9th edition), the Language Assessment Scales, and the TerraNova Assessment Series were consulted for layout and formatting. Considerations such as grade level of students and familiarity of assessments were pertinent to the final layout design of the assessment.

The literature on early reading and early reading instruction and assessment is vast, citing several mandatory skills needed in order to master the skill of reading. The conscious decision to assess students' proficiency in sound symbol correspondence, word reading, and reading comprehension

using the cloze procedure was based on a methodical investigation of the early reading literature. In addition, several pieces of test construction and language assessment literature were consulted in order to construct the first language reading assessment template (Gronlund, 1993; Lado, 1961; Oller, 1979; Oller & Perkins, 1980; Valette, 1977).

3.1. Sound/Symbol correspondence

Associating sounds with the appropriate letters, also called sound symbol (letter) correspondence, is the foundation for reading in any written language that uses an alphabetic system. Furthermore, researchers concur that phoneme awareness instruction is most valuable when it is presented in the context of letter sounds (Ball & Blachman, 1988; Langenberg, 2000). Based upon these conclusions, the authors made the decision to assess students' proficiency in letter-sound identification and place the sound symbol correspondence skill as the first subsection of the test.

This section assessed whether or not students could identify the matching consonant letter to its sound. Micronesian languages often have subtle consonant blends at the beginning of certain words. For example, in the Pohnpeian language, there are initial sounds such as "mw," "ng," and "pw" that are important to the language. When children are explicitly taught phoneme awareness, such as these initial sounds, they are better able to read words and spell (Ball & Blachman, 1988; Cunningham, 1990; Lundberg, 1987). This particular assessment can determine whether or not such skills are being taught, especially when the language consists of complex blends.

3.2. Word recognition/reading

Successful readers focus increasingly on larger units, moving from letter-sound associations to clusters of letters (phonograms). According to Chard, Simmons, and Kame'enui (1994), once early readers learn a number of letter-sound correspondences, they can learn to blend those sounds into simple words. Building upon this information, the authors opted to assess this particular skill and therefore positioned it as the second subsection of the test.

Knowing that most students in the lower grades of Micronesian classrooms probably never experienced paper-and-pencil tests, the authors researched a simplified format to assess word reading. The non-verbal stimulus picture format is a frequently used method. While a number of reservations can be made about the use of pictorial stimuli (Valette, 1977), the literature suggested that the pictures used in tests be simple, stylized, and free of distracting background or superficial detail. Cohen (1980) provided several examples of different pictorial formats. For layout and format ideas, we also reviewed other standardized tests such as the Stanford Achievement Test (9th edition) and the Gates-MacGintie Reading Tests.

In most pictorial stimuli tests, the picture appears on the left side within a box while the items or word choices appear on the right side within a box. Similarly, the authors opted for this format.

3.3. Reading comprehension-Cloze procedure

As children start to blend sounds into words (word reading), the words can be put into sentences to form connected texts (Chard, Simmons, & Kame'enui, 1994). The ultimate goal of any reading program is comprehension, or retrieving meaning from the text. Building upon the skills of word reading, the third subsection assesses students' ability to comprehend text passages.

After researching various forms of reading comprehension assessments, the authors and colleagues decided to use the cloze procedure, which places blank spaces in prose where words in the text have been deleted. Filling in the blanks by guessing the missing words is a special kind of closure, thus, the term "cloze." The reader's guessing of missing words is a kind of fill-in-the-gap task that is not unlike the task of completing imperfect visual patterns (Oller, 1979). For each passage, every seventh word was deleted. If the seventh word was a proper noun, then the word following it was deleted instead. Justification for this procedure is based on the assumption that a person who is either a native speaker of a language or a reasonably proficient non-native speaker should be able to anticipate

appropriate words that belong in the blanks given the contextual clues of the passage. Furthermore, since the assessment is for instructional purposes, the cloze is said to be easier when more words are between deletions because the increased context improves comprehension. A cloze test is easy to administer and can be scored quickly.

The stories were either translated from English or created by language arts specialists from each respective language group. The stories ranged in complexity from grades 1-5. The research by Beck and Juel (1995) suggests that in order to assess comprehension, children need to be able to recognize most of the words in the text. What is more, when students read text at their level, they increase their opportunity to read for meaning (Juel & Roper-Schneider, 1985). Given this information, the cloze procedure attempts to target the students' skill of reading for meaning. Therefore, building upon the previous subsection of word reading/recognition, assessing comprehension provides a succinct picture of the students' overall reading skills.

4. Initial item pool

The authors enlisted the help of a Pohnpeian language arts specialist to draft the prototype template using the Pohnpeian language. The pool of items was developed according to each section of the test.

4.1. Sound/Symbol correspondence

The Pohnpeian language arts specialist was asked to identify initial consonant sounds in the Pohnpeian language. He first constructed a list of all initial consonant sounds (including blended sounds such as "mw," "ng," and "pw") and then a second list of example words (common nouns) to accompany those initial consonant sounds. In order to ensure a large selection of items, several lists of common nouns (along with the English translations) were generated using the same initial consonant sounds. The table below is the Pohnpeian language sample of this task.

Table 4.

Example List of Pohnpeian Language Initial Consonant Sounds

Initial Consonant Sound	Common Noun	English Translation
K	kaht	cat
K	kihl	skin
K	kidi	dog
K	kopou	basket
L	lohs	mat
L	lihmw	sponge
L	lipwei	seashell
L	loangon	sea cucumber
M	malek	chicken
M	mahn	animal
M	masaht	small crab
M	mahi	breadfruit
Mw	mwahmw	fish
Mw	mwahng	taro
Mw	mwangas	coconut
Mw	mwenge	food

4.2. Word recognition/reading

In order to construct the second section of the assessment template, a list of high frequency words was sought. However, in Pohnpei, as well as in several other Micronesian states at the time, there was

no list. The Pohnpeian language arts specialist had to rely on his own experience and expertise to generate this list for the purposes of the assessment template. Furthermore, high quality, culturally appropriate graphics were needed. The Applied Research and Development unit of PREL purchased a licensed software program, *Printmaster Platinum*, for the purpose of creating high quality print items.

The Pohnpeian language arts specialist was asked to generate a list of words based on a review of the catalog of graphics and select pictures/words that were relevant, frequently occurred in the Pohnpeian language, and culturally appropriate for Pohnpeian students. For example, pictures of various tropical fruits such as coconut, papaya, banana, and pineapple were chosen for the pool of items. Also included were pictures of a hut, key, pig, motorboat, church, ball, and tree. A list of 57 words was generated according to the selected graphics determined to be most appropriate for students from kindergarten to 3.

After the graphics and the accompanying words were selected, distractor words were determined. Though distractor words should look similar to the target word, they should not have any meaning remotely similar to the target word. For example, in the English language the word “hut” may be used as the target that corresponds to a picture of a hut. The three distractors could be “hat,” “nut,” and “hit.” These words are similar in spelling to the word “hut” but have completely different meanings. The assessment determines whether or not students are able to relate the picture of the hut with the corresponding word. It can be inferred that students who do not choose the correct word may have difficulty in distinguishing letters and sounds or may be unable to read the word. The following table is an example of the word list and distractors.

Table 5.

Example List of Pohnpeian Language Word Reading Assessment Items

English Word (Graphic)	L1 Translation	Distractor 1	Distractor 2	Distractor 3
man	ohl	ohn	ohle	olo
tooth	nih	ngih	ngei	ngi
leaf	teh	deh	peh	te
pig	pwihk	pihk	pwik	pwike
woman	lih	lihe	nih	lie
chicken	malek	walek	dalek	mallek
knife	naip	naipe	naihp	naep
boat	serek	derek	werek	perek
star	usu	isu	wisu	uhsu

4.3. Reading comprehension-Cloze procedure

The third and final section of the assessment was the most difficult to construct. The decision was made to develop five separate stories, beginning with a “level one” and progressing in both length and complexity to “level five.” These levels corresponded to grade levels. Because there is such a paucity of first language materials in Pohnpei (and throughout Micronesia), the stories used for this section were created by the Pohnpeian language arts specialist. While a few stories existed in the Pohnpeian language via the Pacific Area Language Materials (PALM) project, these stories were considered unsuitable. The PALM is a CD-ROM collection of several stories in Pacific languages that can be edited for instructional purposes. Some of these stories were in use in several Pohnpeian classrooms; therefore, students were already familiar with them. This familiarity could result in test bias and unfairly skew the final scoring of the assessment.

5. Revise test items

As an initial assessment of native language reading, this instrument provides a basic starting point to proceed. However, after its inception during the PLUS study, several limitations and errors were

found. Using the Pohnpeian language assessment as the template, other language arts and/or linguistic specialists as well as other respective native language speakers were asked to review the instrument. In addition, the use of this template served as the foundation for developing the assessment in other Pacific languages (Carolinian, Chamorro, Chuukese, Kosraean, Marshallese, Palauan, Samoan, and Yapese). Much information was gained as a result of working with the various language arts specialists to develop their version of the assessment. Discrepancies arose such as several Pohnpeian words not existing in other Pacific languages. Within a particular language, orthographic inconsistencies caused consternation. Because the written language is still rather new, varying opinions exist regarding spelling, pronunciation, and meaning.

By Lynch's account (1998) no Pacific languages were written prior to European contact. The Latin alphabet is universally applied to the written form of Pacific languages. Christian missionaries developed orthographies for most of the written languages of the Pacific during the 19th and 20th centuries, with some contributions from linguists.

In creating orthographies for Pacific languages, missionaries and linguists faced several problems that reliance on the spelling system of either English or French could not always resolve. The first and most obvious of these is that the spelling systems of these two European languages are not always consistent. Furthermore, the occupation by the German, Spanish, and Japanese in Micronesia brought varying forms of spoken and written languages that were often the mandated language, depending upon who was in power.

There are also distinctive features in Pacific languages that are absent in languages such as English or French. For these there is no "natural" orthographic representation. Two examples common to many parts of the region are 1) the contrast between short and long vowels and 2) the glottal stop phoneme. Different solutions were often found for these types of problems in different areas. For vowel length, the macron (as in ā, ē) has been used in a number of Polynesian languages, while double vowels (aa, ee) are used in others. The glottal stop has most often been indicated in Polynesia by a single opening quotation mark, otherwise called "okina," as in the word Hawai'i.

The problem with diacritical marks is that because they are not seen as "normal" letters, people very often omit them when they write the language. This was one of the problems when constructing the assessment template using the Pohnpeian language as the prototype.

However, the problems have not only been technical. There are general principles on the basis of which good orthography can be developed, but there is many times a certain amount of choice even after the application of these scientific principles. For example, it makes scientific sense to write /a:/ as ā, as aa or ah, as in Micronesia. Orthographic design in a number of regions in the Pacific has often revolved around these areas of choice and reflects the fact that speakers of the language, and outsiders, have very strong feelings about how a language ought to be written, regardless of any scientific approach to the situation. Factionalism of various kinds demonstrates itself in spelling debates all over the Pacific. This is especially true when relying on several different experts to help provide the content for the assessment template. At some point however, decisions must be made. Knowing and understanding that orthographic inconsistencies will always crop up, the goal then is to look at the whole. In other words, the assessment is aimed at assessing reading skills as well as instructional support. It is left up to the teacher to decide on what he/she deems important when scoring the assessment.

As a research instrument, however, these discrepancies made it difficult to correct the tests. In some instances, a few pictures for section 2 were not culturally appropriate or explicit enough. Also, distractor words may have been too similar in meaning to the target word and thus rendered unfair for the student. For some items, a lack of appropriate distractor words posed a problem. In these situations, the item was replaced with another picture/word.

The cloze procedure was and still is in need of heavy revision. Finding graded level text in English is difficult. Finding graded level text in Micronesian languages is near impossible. The creation of culturally appropriate stories for the cloze is another area that needs concentrated attention. In part, however, the difficulties in completing the cloze portion were the lack of experience in doing such an activity.

6. Pilot test and revise

The native language reading test was piloted in Yap State, FSM. We were unable to pilot the Pohnpeian, Chuukese, and Kosraean language versions prior to their use in the PLUS study. However, because it was used in a following study, the assessment served as a pilot for the new research project. Respective language versions of the test, based on the template, were administered in Kosrae, Pohnpei, Chuuk, the Republic of Palau, the Commonwealth of the Mariana Islands, Guam, American Samoa, and Hawai'i.

The test administered in Hawai'i took place at a charter school on the island of Kaua'i and involved students who speak Ni'ihau Hawaiian. The authors and a colleague worked with the teachers of this school to develop their version of the assessment. They opted to switch subsection 1 with subsection 2, feeling that the pictures would be a non-threatening way to begin the test. For all of the other language groups, the test remained in the original order.

As a result of the above evaluation, a number of revisions were made. For example, better pictures were added, culturally appropriate cloze passages were developed, and improved distractor words were substituted. We changed the positions of correct answers to reflect ambiguity rather than a "pattern." Because the orthography is constantly in flux, some of the test items were changed to reflect the current or most commonly agreed upon word or spelling.

7. Summary, conclusions, and recommendations

7.1. Summary

The ability to read forms the basis for all school-based learning. Teachers have an important responsibility in the early grades to ensure that the basic competencies of reading are mastered. One of the most essential components in teaching students to read is using formative assessments to guide instruction. For students in Micronesia, it is not known just how well they fare when it comes to reading in their native language. No research-based instrument exists to measure the first language early reading abilities of Micronesian students. The purpose of this study was two-fold: 1) to describe the process of creating a research-based Pacific language early reading assessment template and 2) to develop a research-based Pacific language early reading assessment template for use in Micronesian/Pacific classrooms. The numerous Pacific language groups and/or alphabetic languages were targeted for its use.

In this study, the literature addressed four major themes that guided the research: 1) the most current or relevant research in early reading, 2) the most current or relevant research in early reading instruction, 3) assessment literature, and 4) a section on test/assessment construction. The information was used as a structure of knowledge that provided the foundation for which the assessment instrument was based upon.

To answer the larger research question (What is a process to develop a research-based Pacific language reading assessment template?), data was collected through observations, field notes, and documentation notes of the process used to develop the assessment template.

The heart of this investigation relied on the research-based knowledge used to inform the template's development and how this knowledge transferred to the Micronesian languages and their reiterations of the assessment. The prototype for the template was based on the Pohnpeian language. Once the template was completed, it was sent out to several other Pacific language arts specialists to create their own version of the assessment in their vernacular. This process served as a review of the template itself and assessment development in the various languages.

The results of this study indicated that the orthography of Pacific languages is constantly changing or questioned among local scholars. This instability raises concerns when developing reading assessments for formative and summative purposes. Because the languages have been traditionally oral, the development of the written language is a work in progress, hence affecting any type of written assessments for reading. Discrepancies in pronunciation and spelling need to be addressed or at least made clear for those who want to create this type of assessment.

7.2. Conclusions

The Pacific language early reading assessment (template) was originally developed as a data collection instrument for a region-wide language use study. However, throughout its development, the authors and colleagues realized the instrument's potential as an instructional tool to provide information for teachers. Its utility best serves those who have a basic understanding of assessment for instructional purposes. Given the educational background of most Micronesian teachers, professional development in reading and assessment seems a more viable avenue to enhance teacher knowledge and skills.

The development and use of the assessment targeted Pacific/Micronesian teachers. Because of the unique context of the Pacific, it is important to reiterate the context within which the assessment is used: 1) the languages of Micronesia are traditionally oral; 2) the majority of teachers in Micronesia have at most an associate's degree, with little or no coursework in early reading, reading pedagogy, or reading assessment; and 3) very little reading materials exist in the native languages of Micronesia. Based on the results of this investigation, several conclusions were drawn:

1. There is a great need for first language reading test development throughout the Pacific region.
2. Teachers need support, assistance, and training in gaining the skills to provide reading instruction/assessment to their students.
3. Orthography for languages that have regional dialects or variations is inconsistent.
4. More first language reading materials need to be developed and used in instruction.
5. Much regarding first language reading and the intent and purpose of instruction in first languages remains to be discussed. If the first language is to be taught, then first language learning also needs to be assessed to show development/progression.
6. A discussion on first language reading and grade level appropriate passages needs to occur. In several instances, it was difficult for even the language specialists to determine relative difficulty of first language stories and grade level appropriateness.
7. Professional development in reading and assessment, specifically formative assessment, is highly needed.

7.3. Recommendations

This paper documented the process of developing the Pacific language reading assessment template. As a result of this study, a number of recommendations are suggested:

1. Continue to refine the Pacific language reading assessment in each Pacific locale. This would include language arts and reading specialists along with linguists from respective entities.
2. Develop different forms of the Pacific language reading assessment. For example, other subsections may include vocabulary and decoding.
3. Evaluate the validity of this assessment by testing the psychometric properties of each item.
4. Encourage classroom teachers to create their own forms of reading assessments to support instruction as well as measure student outcomes.
5. Advocate for professional development in the areas of reading, reading pedagogy, and assessment.

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