The Le Fetuao Samoan Language Center

According to their website (http://www.lefetuao.com/), the Le Fetuao Samoan Language Center (LFSLC) is located in the Salt Lake area located at 3227 Ala Ilima St Apt 2, Honolulu, Hawaii 96818. The LFSLC is a community-based non-profit service program founded in 2007 to provide opportunities for Samoan children “to learn their heritage language and culture utilizing interactive, hands-on, and culturally relevant strategies. The program is open to anyone who wants to learn Samoan language and become familiar with its culture and customs.”

More formally, the mission of the LFSLC, as stated on its Facebook page (https://www.facebook.com/lefetuao/info), is to:

- Increase literacy in the Samoan Language for our youth and understand the Samoan culture to build a Samoan identity. Ia faʻalauaʻiteleina le faitau ma le tusitusi i le gagana Samoa mo fanau.
- To serve as a model for other Samoan church communities. Ia avea ma faʻataʻitaʻiga mo isi Ekaesia Samoa.

And its vision is:

- To create a Samoan Language school that incorporates church, family and youth. Ia faʻatuina se aʻoga gagana Samoa e laugatasia ai Ekaesia, Aiga ma fanau.
- To empower our youth to be productive and contributing citizens with a strong self-image and knowledge of their Samoan heritage. Ia faʻamalosia a tatou fanau ia avea ma tagata nuʻu taʻuaogaina ia faʻamautuina se mitamitaga ma le malamalamaʻaga i le faʻasamoa.

While it is run by volunteers, parents, and community members, the LFSLC has important partnerships with the University of Hawaiʻi Samoa Language and Culture Program, as well as
with local churches and businesses. “These partnerships are closely involved with the community in the planning, implementation, and on-going assessment.” It is this last component, “on-going assessment,” that is the focus of this report. For more information on the Samoan Language Center, see http://www.lefetuao.com/; https://www.facebook.com/lefetuao/info; and/or https://www.youtube.com/user/lefetuao.

Purpose

The purpose of this pilot project was to develop and validate the Samoan oral proficiency interview (OPI), which was designed to assess the Samoan language needs of the students at the LFSLC. To that end, the following research questions were posed about the Samoan OPI:

1. To what degree are the scores on the Samoan OPI normally distributed?
2. To what degree are the scores on the Samoan OPI reliable?
3. To what degree are the scores on the Samoan OPI valid in terms of their relationship to participants’ ages, school grades, and months at LFSLC, but also in terms of test design?

METHOD

Participants

The 24 participants in this pilot study were all attending the LFSLC Summer Technology Camp (known in Samoan as Tekonolosi & Gagana Samoa). This camp is described at http://www.lefetuao.com/tekonolosi-gagana-samoa/ as follows: “Technology can play a significant role in language development. Students at Le Fetuao Samoan Language Center use iPads and MacBooks as tools to learn language. It’s proven effective in education that technology can improve children’s language skills via listening, reading, and writing. *E taua le feso’ota’i o a’oa’oga fa’aonapō nei e iai le tekonolosi ma le a’oa’oina o le gagana. Ua fa’aaogaina iPads e le Fetuao ina ia fai lea ma so’otaga o le a’oa’oina o le gagana i le potu a’oga ma le aiga. Ua fa’amaonia le aogā o le tekonolosi ina ia mafai e fanau ona fa’alogo, faitau, ma tusitusi le gagana i auala ‘ese’e’ese.”

The participants ranged in age from 9 to 16 years old with an average of 11.67 (see Figure 1). At the same time their school grades ranged from 3rd to 11th grade with an average of 6.63 (see Figure 2).
In all, 14 of the participants were students in the LFSLC Program, while 10 were not. The students attended a variety of elementary, middle, and senior high schools in Hawai‘i (Aiea Intermediate, Aliamanu Elementary, Aliamanu Middle, Alvah Scott Elementary, Cambell High, Dole Middle, Farrington High, Hickam Elementary, Keone‘ula Elementary (Ewa), Lokahi Charter School, Moanalua High, Pearl City Intermediate, Voyager Charter School, Waianae Elementary, & Waianae High) with one student from Las Vegas, NV.

**Figure 1.** Histogram of the Pilot Samples Ages

**Figure 2.** Histogram of the Pilot Samples Grade Levels
Materials

The materials for this pilot Samoan Oral Proficiency Interview (OPI) were adapted from the Southeast Asian Summer School Institute (SEASSI) Placement Test Oral Interview (see Appendix A) and administered in a similar way. This test is designed to be used in the larger assessment context shown for speaking skills in Appendix B.

The SEASSI Placement Test. The SEASSI Placement Test Oral Interview was first developed in an English language prototype (see Appendix A) by Brown, Ramos, Cook, and Lockhart (1991) for later translation/adaptation and use for placement testing purposes in two successive SEASSIs in five languages: Indonesian, Khmer, Tagalog, Thai, and Vietnamese. The steps and processes used to develop the five SEASSI Oral Interview tests in different languages are described in the original documentation. Similar steps and processes were used in this project to develop the Samoan OPI.

The Samoan OPI for Assessing Speaking

We cannot include actual questions on the Samoan OPI here because teachers and students would then have access to them online. We can say that the questions on the Samoan OPI are similar to those used in the SEASSI Placement Test Oral Interview described in the previous subsection and shown in their English language prototype version in Appendix A. The questions were organized into the following five levels:

1. **L1 – Maualalo (Low)**
   Le iloa tautala (Novice Speaker)

2. **L2 – Feololo (Medium)**
   Memorization proficiency

3. **L3 – Maualuga (High)**
   Elementary proficiency

4. **L4 – Maualuga tele (Advanced)**
   Limited proficiency

5. **L5 – Mao’a’e le Maualuga (Superior)**
   Proficiency
Procedures

The Samoan OPI was administered while technology class was in session in the afternoon of Thursday, June 18th, 2015 in a classroom at Leeward Community College. The test was administered one-on-one in a quiet corner of the classroom. Students were pulled out of class one-by-one to be tested. As one student completed his/her test, he/she prompted the next student to be tested.

The tester and the examinee were seated facing each other. Instructions were read aloud by the tester while the examinee was instructed to listen carefully and ask questions if anything was not clear. Test environment was quiet and free of noise or distractions. Students were instructed to listen to the test questions and respond using the Samoan language to the best of their ability. The directions for administering the Samoan OPI were as follows:

Instructions: Talofa. This is a test to determine your ability to speak and respond to Samoan questions using Samoan language. I will read out several prompts and questions. You are to respond to the questions using Samoan language and not use any other language. If you don't understand or you don't want to respond to a question, feel free to say so and I will give you another question. You have 5 seconds to respond to questions to the best of your knowledge. When 5 seconds are up and you haven't responded, the unanswered question will be marked zero. All questions will be written and presented using Samoan language. Do you have any questions before we proceed?

Thank you. Let's get started.

Each student, depending on his/her ability to respond to questions spent about 10 to 15 minutes being tested. Low proficiency students who could not respond to questions were excused to go back to their seats after they were unable to respond it at least four questions.

RESULTS

The results will be presented in three sections: descriptive statistics, reliability, and correlations.

Descriptive Statistics

The descriptive statistics for the scores and levels achieved by the participants in the pilot sample are shown in Table 1. Notice that the number of participants was 24 for both Scores and
Levels because they apply to the same people. That table also shows the average scores and levels as well as the standard deviation (that is, a sort of average of the distance of the participants from the average), as well as the highest and lowest values, and the range (that is, the distance between the highest and lowest values). Thus the average score for the 24 participants was 6.21, which is fairly low on what is a potential scale of 30, but the standard deviation of 8.64 tells us that the scores are fairly widely spread out, as do the high score of 26, low score of 0, and very high range of 27 out of 30. All of this appears clearly in Figure 3, which presents a histogram (or bar graph) for these scores.

Table 1: *Descriptive Statistics for Scores and Levels for the Pilot Sample on the Samoan OPI*

<table>
<thead>
<tr>
<th>Scores</th>
<th>Levels</th>
<th>Months at LFSLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Participants</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Average (Mean)</td>
<td>6.21</td>
<td>1.54</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>8.64</td>
<td>1.35</td>
</tr>
<tr>
<td>High</td>
<td>26</td>
<td>4.5</td>
</tr>
<tr>
<td>Low</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Range</td>
<td>27</td>
<td>5.5</td>
</tr>
</tbody>
</table>

*Figure 3. Histogram of the Pilot Sample Scores*
Once the scores were converted to levels, the average level for the 24 participants was 1.54, which is also fairly low on what is a potential scale of 5, and the standard deviation of 1.35 indicates that the levels are relatively spread out, as do the high level of 4.5, low level of 0, and very high range of 5.5. Again, all of this is presented visually in Figure 4, which presents a histogram (or bar graph) for these levels. Notice in particular the high number of participants who performed at Level 1.

Figure 4. Histogram of the Pilot Sample Levels

**Reliability**

The reliability of the scores for the Samoan OPI was estimated using a very rough and ready procedure, called the Kuder-Richardson formula 21 (K-R21). Though this is estimate is not entirely appropriate for this type of data (that is, because K-R21 assumes independence among the items and equal difficulty), it was used, because there was no alternative, to get at least a rough idea of how reliably (or consistently) the scores were assigned. Reliability estimates indicate the degree to which a set of scores were consistent. They can range from 0.00 (if the scores are entirely unreliable) to 1.00 (if the scores are 100% reliable) and everything in between. Thus reliability estimates represent the proportion of consistent variation in scores, and by moving the decimal point two places to the right, they can be interpreted as percentages of consistent variation in scores. In this pilot study, the K-R21 reliability was .9662379, or about
.966, which means that the scores on the Samoan OPI were 96.6% consistent, and so they can be viewed as quite reliable. (For more on reliability, see Brown, 2005)

**Correlation Coefficients**

Correlation coefficients indicate the degree to which two sets of numbers are related or “go together.” For purposes of this discussion, correlation coefficients can range from 0.00 to 1.00. The correlation coefficient for Scores and Levels was 0.97986985, or about .98 (for a visual representation of this relationship, see Figure 5). Squaring the .98 correlation coefficient and moving the decimal point two places to the right gives us the coefficient of determination, which indicates that the two variables Scores and Levels overlapped about 96% in how the participants Scores were related to their Levels. This makes sense given that the levels were determined by a simple conversion. Thus, this coefficient tells us that the conversions from Scores to Levels were done correctly and that they are nearly perfectly related.

![Figure 5](scatterplot.png)

*Figure 5. Scatterplot for the Correlation Between Levels and Scores*

Table 2 shows the correlation coefficients and percentages of overlap (i.e., coefficients of determination) for Levels and Scores with Age and Grade on the Samoan OPI. Clearly, Levels are somewhat related to Age (28%) though slightly less so to Grade (22%). Similarly, Scores are a bit more related to Age (31%) though slightly less so to Grade (25%). These results mean that
to some degree older participants in higher grades tended to score higher than younger participants in lower grades.

Table 2: Correlation Coefficients and Percentages of Overlap for Score, Level, and Number of Years Studying Samoan with Age and Grade on the Samoan OPI

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Grade</th>
<th>Months at LFSLC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Correlation coefficients:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scores</td>
<td>0.55</td>
<td>0.50</td>
<td>0.76</td>
</tr>
<tr>
<td>Levels</td>
<td>0.52</td>
<td>0.47</td>
<td>0.76</td>
</tr>
<tr>
<td><strong>Percentages of overlap:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scores</td>
<td>31%</td>
<td>25%</td>
<td>58%</td>
</tr>
<tr>
<td>Levels</td>
<td>28%</td>
<td>22%</td>
<td>58%</td>
</tr>
</tbody>
</table>

More important from a validity standpoint, the correlation coefficients between the number of months at LFSLC and their Scores and Levels, were 0.76 in both cases, which indicated that there was 58% overlap between the amount of time the participants had been at LFSLC and their Scores and Levels. Thus whatever the Samoan OPI is measuring it appears to be at least 58% related to time on task with Samoan language study.

**DISCUSSION**

This section will directly address the research questions posited at the top of this report. As such the research questions themselves will be used as headings to help organize the discussion.

1. **To What Degree Are the Scores on the Samoan OPI Normally Distributed?**

   Table 1 indicates that, in this pilot study, the Samoan OPI Scores are adequately spread across the entire 30 point scale from a low of 0 to a high of 26. However, the average of 6.21 is relatively low and the standard deviation of 8.64 is larger than the average—both indicating that the distribution of Scores is probably not normal. Visual inspection of Figure 3 shows that the distribution is mostly flat, but noticeably there is a large number of 2s. Similarly, Table 1 shows
that the Samoan OPI Scores in this pilot study are widely spread across the most of the 6 point scale from a low of 0 to a high of 4.5. However, the average Level of 1.54 is relatively low and the standard deviation of 1.35 is nearly as large as the average—both indicating that the distribution of Levels is probably not normal. Figure 4 further shows visually that the Levels are spread in a more or less flat distribution from 0 to 4.5, with a notably large number of students at Level 1.

The distributions of Scores and Levels on the Samoan OPI are clearly not normal. This probably occurred because a large proportion of the students (10 out of 24) in this small sample were new to the program because they were attending the Summer Technology Camp for the first time.

The distributions might have been normal if sample were larger and if it were focused only on students in LFSLC proper.

However, these distributions are what they are. Since the trust of this project is to develop a criterion-reference Samoan OPI, normality may not be all that important from a measurement perspective. Nonetheless, normality is an assumption underlying the reliability and correlational statistics applied in this project, so readers should take the lack of normality into account in interpreting the other statistical results presented in this report.

2. To What Degree Are the Scores on the Samoan OPI Reliable?

The K-R21 reliability reported in this study turned out to be a very high .97. The K-R21 index is an internal consistency reliability estimate which gives us some sense that the Samoan OPI is probably reliable internally. However, because K-R21 assumes independence among the items, equal difficulty, and normality of the total scores, and those assumptions were not met in this pilot study, further study of the reliability of the Samoan OPI is warranted. We would recommend that this take the forms of inter-rater reliability (that is, using two raters to score all of the recorded interviews independently and then calculating the correlation between their ratings) or test-retest reliability (that is, conducting two interviews scored by one rater on different occasions and then calculating the correlation between the resulting scores). However, those approaches will have to wait for larger administrations down the line as the Samoan OPI is applied operationally.
3. To What Degree Are the Scores on the Samoan OPI Valid in Terms of Their Relationship to Participants’ Ages, School Grades, and Months at LFSLC, but Also in Terms of Test Design?

The correlation coefficients reported in Table 2 for Scores with Age, Grade, and Months at LFSLC, as well as for Levels with Age, Grade, and Months at LFSLC were .55, .50, .76, .52, .47, and .76, respectively. The corresponding percentages of overlap were 31%, 25%, 58%, 28%, 22%, and 58%. These results indicate that, as students get older in terms of years and their grade levels in school, their Scores and Levels on the Samoan OPI go up to some degree; but to and even greater degree, the more months they have studied at LFSLC, the higher their scores and Levels on the Samoan OPI. That constitutes a criterion-related validity argument for the validity of the Samoan OPI.

However, more importantly, the Samoan OPI was carefully designed and constructed to contain questions of increasing difficulty that were directly related to the ACTFL OPI guidelines as well as things the students were learning at LFSLC and were expected to be able to do with the Samoan language when they finished their studies. This constitutes a content validity argument for the validity of the Samoan OPI for pedagogical decision making.

CONCLUSIONS

This pilot project generally indicates that the Samoan OPI is functioning as well as can be expected in a pedagogical setting like that at LFSLC in terms of (a) spreading students out across the entire scales in terms of Scores and Levels, (b) the consistency or reliability of the scores, and (c) the validity of the test for pedagogical decision making.

However, the Samoan OPI represents a single scale related to overall proficiency. We recommend that the teachers in the LFSLC consider developing a more detailed rubric that will provide students and teachers a better idea of what aspects of the language are being taught and provide them with more detailed feedback on the learning and teaching, respectively. An example of such a rubric was developed used and validated in Hilo, Hawaii for young learners of Hawaiian as reported in Housman, Dameg, Kobashigawa, & Brown (2012) (see Appendix C for the English language version of that rubric). Note that those language teachers chose to assess and give feedback on Communicative skills, vocabulary, grammar, pronunciation, fluency,
language steadfastness, as well as cultural and linguistic authenticity. A similar rubric could fairly easily be developed for the Samoan language using those categories or others as the teachers see fit. The advantage would of course be that teachers and students would have more detailed diagnostic and achievement feedback, expressed in words that are easy to understand.

REFERENCES


APPENDIX A:
ENGLISH PROTOTYPE
SEASSIPE INTERVIEW QUESTIONS

Novice - Low
Hello.
Please sit down. How are you today?
What's your name?
How old are you?
Where are you from?
What day is it today?
What time is it?

Novice - Mid
What room is your class in?
How many languages do you speak?
What are they?
What do you do for a living?
Do you like doing that?
Where do you live?
Is it far from here?

Novice - High
Do you have any brothers or sisters?
Are they older or younger?
What do your father and mother do?
Where do(es) your [insert one relative] live?
Where can you buy stamps?
Where do you go to see a movie?
Where would I buy some candy?

Intermediate - Low
How long will you be in Hawaii?
Please ask me a question about my family.
And another question.
Please ask me for directions to Sinclair Library.
And to the post office.
Pretend that you want to buy a watch. What would you say first?
What would you say next?

Intermediate - Mid
Tell me about the place where you live.
What furniture is there’?
How do you come to school?
How long does it take?
What did you do last weekend?
What do you do in your free time?
What do you plan to do next summer?

**Intermediate - High**
What has your day been like today?
What is your normal day like?
What will you do when you finish today?
Can you tell me how to get to the Campus Center?
Please tell me a little bit about your childhood.
What are your plans for the future?
Please describe Waikiki.

**Advanced**
What do you like or dislike about Honolulu? And why?
Which country would you like to visit? And why?
What was the last movie you saw? Can you tell me the story?
What is the most beautiful place that you’ve ever visited?
Describe it.
Describe how you would go about registering for a course at this university.

**Advanced - Plus**
What are some of the causes of the high crime rate in the U.S.A.?
What differences and similarities do you see between the political systems of the U.S.A. and [insert target country name].
What are some of the causes poverty and hunger in the world today?
How would you compare the culture of the U.S. with that of [target country] culture?

**Superior**
What would you do if you were in [target country] now?
What would you be doing if you were not here?
In your profession, what is the most difficult issue to solve and what are your opinions about the best solution?
What is the difference in [insert target language] between the way you speak to a superior and to an intimate friend?
## APPENDIX B:
### SPEAKING SKILLS

**Sample Student Sheet – Teacher collects**

<table>
<thead>
<tr>
<th>#</th>
<th>Tchr Points</th>
<th>Points Possible</th>
<th>MANDATORY COMPONENTS</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>REQUIREMENTS:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Project Title:</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>6</td>
<td>Planning Process sheet</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td></td>
<td>Notes or Speech</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td></td>
<td>□ Small group presentation  or  □ class project</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
<td>Small group presentation information:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Time</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Place/Location</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Names of audience</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Relationship:</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>6</td>
<td>Pre and Post Survey (share results and attach surveys/tallies)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>9</td>
<td></td>
<td>Teaching material used: (attach sample)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ Brochure, □ poster, □ flyer, □ ppt or □ other:</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td></td>
<td>Thank you speech (□ small group or □ class)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Class Presentation of Journey and Your How to/Info</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td></td>
<td>*Introduction-captured attention immediately</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td></td>
<td>*Knowledge of Subject Matter-Evidence of thorough knowledge</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Effective presentation of current data and information to support viewport points</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>and issues of concern</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td></td>
<td>*Conclusion: -Reflection: what changes/improvements/ are you going to do in the future. What was the most significant information you learned to share with the class</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>3</td>
<td></td>
<td>*Summary-Excellent summary with strong concluding statement</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>manda tory</td>
<td>5 Resources mandatory ( online, books, magazines, etc) (typed on full sheet)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>50</td>
<td></td>
<td>Presentation- Speech is about the Journey and summary of the How facts taught to your small group. Share your experience Must be professional, serious, prepared, poster complete for all points or missing points, not joking, enthusiasm, loud voice, use visuals, make it interesting, ALL components of the grade sheet has been covered. (no verbal, no points; no product, no points, too) Well prepared presentation</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>5</td>
<td></td>
<td>*Organization/Delivery- Presentation covers all relevant information completely and explains project with a seamless and logical delivery</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td>Deduction/ Extra credit</td>
<td></td>
</tr>
</tbody>
</table>

| Total |
## APPENDIX C: HAWAIIAN ORAL PROFICIENCY ASSESSMENT RUBRIC (ENGLISH VERSION)

<table>
<thead>
<tr>
<th>Semantics</th>
<th>Phonology</th>
<th>Kuana‘ike / Worldview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communicative Skills</strong></td>
<td><strong>Vocabulary</strong></td>
<td><strong>Grammar</strong></td>
</tr>
<tr>
<td>3</td>
<td>• Speaks in complete sentences.</td>
<td>• Word knowledge encompasses contexts of speech, which fulfill and go beyond the task.</td>
</tr>
<tr>
<td>2</td>
<td>• Speaks mostly at the phrase or sentence level.</td>
<td>• Word knowledge is limited to the task at hand.</td>
</tr>
<tr>
<td>1</td>
<td>• Speaks in brief and incomplete sentences, sometimes involving only one word or phrase.</td>
<td>• Word knowledge is not sufficient to adequately fulfill the task.</td>
</tr>
</tbody>
</table>