

## Summary of The North Tanna Project with TBTA

Greg Carlson and Dr. Stephen Beale developed a North Tanna lexicon and grammar sufficient to generate the Grammar Introduction, the biblical book of Ruth, and Genesis 39. Then they performed two sets of experiments to determine the quality of the generated draft of Genesis 39. In the first experiment, two experienced mother-tongue translators edited the draft of Genesis 39 into a presentable first draft, and one experienced mother-tongue translator manually translated the same chapter. The results of that experiment indicate that using the TBTA draft approximately quadrupled the productivity of these translators. In the second set of experiments, the edited computer draft was read to five evaluators, and the manually translated text was read to two evaluators. Then the evaluators were asked to retell the story, and they were also asked to answer comprehension questions related to particular verses. The results indicate that both the edited TBTA draft and the manually translated text were essentially of the same quality and contained the same information.

### *1. Introduction*

Greg Carlson and his wife are members of Wycliffe Bible Translators, and they lived and worked in Vanuatu with the Tanna people for approximately 20 years. North Tanna is an Austronesian language spoken in Vanuatu by approximately 5,000 people. Greg and his wife worked with a team of mother-tongue translators and completed the North Tanna New Testament in 2008.

Greg and Steve worked together in 1999, and developed a lexicon and grammar for North Tanna sufficient to generate the Grammar Introduction, the biblical book of Ruth, and Genesis 39. After generating drafts of the biblical passages, they performed two sets of experiments to determine the quality of the generated draft of Genesis 39. The results from their first set of experiments indicate that when experienced mother-tongue translators use the draft generated by TBTA, their productivity is approximately quadrupled. The results from their second set of experiments indicate that the edited TBTA draft and the manually translated draft contain essentially the same information and both are equally acceptable to mother-tongue speakers.

### *2. Experiments to Determine Increased Productivity*

The first set of experiments was designed to determine whether or not the draft of Genesis 39 generated by TBTA was of sufficient quality that it increased the productivity of experienced mother-tongue translators. Greg asked three mother-tongue translators from the New Testament translation team to participate in this experiment. Two of the translators edited the TBTA draft, and the other translator manually translated the chapter from the NIV and the Bislama<sup>1</sup> Bible. The two translators who edited the TBTA draft each spent approximately 30 minutes editing the text into a presentable first

---

<sup>1</sup> Bislama is the national language of Vanuatu and is an English based Creole spoken by about 10,000 people.

draft. The translator who manually translated the text spent approximately two hours translating the chapter. Firm conclusions can't possibly be drawn from such a small sample set, but the results indicate that using the draft produced by TBTA approximately quadrupled the productivity of these experienced mother-tongue translators.

### *3. Experiments Comparing the Quality of the Edited TBTA Text with the Manually Translated Text*

After the productivity experiments were completed, one of the edited TBTA texts and the manually translated text were evaluated by seven people. These evaluations consisted of three steps.

The first step consisted of reading the entire chapter to an evaluator, and then asking the evaluator to retell as much of the story as he or she could recall. The entire chapter of the edited TBTA draft was read to five of the evaluators, and the manually translated chapter was read to two evaluators. In each case the evaluators were able to accurately recall and retell most of the story.

The second step consisted of reading the chapter again, one verse at a time, to an evaluator, and then asking the evaluator to either answer comprehension questions<sup>2</sup> for that particular verse, or to retell the verse. This process took approximately 30 to 40 minutes for each evaluator. For both the edited computer draft and the manually translated text, the evaluators were able to answer the comprehension questions and accurately summarize each verse. There were several common misunderstandings for both translations, but those were attributable to translation and cultural issues, not the method of translation.

For the final step of the evaluation process, Greg read one verse from both of the translations to several of the evaluators, and asked each evaluator whether he or she preferred one version over the other. In every case the evaluators said that both versions were essentially equal, and the evaluators had no preference.

### *4. Conclusions*

Firm conclusions can't possibly be drawn when the sample sets are so small and the evaluations are entirely subjective. If these experiments were the only experiments evaluating TBTA's texts, then no conclusions could be drawn. But other experiments have been done with TBTA's texts in other languages (Korean, Kewa, and Jula), and the results of those experiments highly corroborate the results of these North Tanna experiments. So these North Tanna experiments support the claim that when experienced mother-tongue translators use the drafts generated by TBTA, their productivity is typically quadrupled without any loss of quality. Furthermore, evaluators who are unfamiliar with how the texts are produced don't indicate a preference for either the manually translated texts or the edited TBTA texts.

---

<sup>2</sup> The comprehension questions were taken from Translator's Workplace 5.0, "Questions for Checking Translations\Genesis" written by Doug Trick.