

Words should be fun: Scrabble as a tool for language preservation in Tuvan and other local languages¹

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One small but practical way of empowering speakers of an endangered language to maintain their language's vitality amidst a climate of rapid globalization is to introduce a mother-tongue version of the popular word game Scrabble into their society. This paper examines how versions of Scrabble have been developed and used for this purpose in various endangered or non-prestige languages, with a focus on the Tuvan language of south Siberia, for which the author designed a Tuvan version of the game. Playing Scrabble in their mother tongue offers several benefits to speakers of an endangered language: it presents a communal approach to group literacy, promotes the use of a standardized orthography, creates new opportunities for intergenerational transmission of the language, expands its domains of usage, and may heighten the language's external and internal prestige. Besides demonstrating the benefits of Scrabble, the paper also offers practical suggestions concerning both linguistic factors (e.g., choice of letters to be included, calculation of letter frequencies, dictionary availability) and non-linguistic factors (board design, manufacturing, legal issues, etc.) relevant to producing Scrabble in other languages for the purpose of revitalization.

1. INTRODUCTION.² The past several decades have seen globalization penetrating even the most remote corners of the world, bringing with them popular American exports such as Coca-Cola and Hollywood movies. Though some of the vessels of globalization, such as new technology, are often welcomed by small ethno-linguistic groups, the content brought to them in these vessels is frequently not received as a positive thing, and may in fact be seen as destructive to the way of life that the small society wants to preserve. Take, for example, the following sentiment expressed by a writer from Tuva in south Siberia in the preface to his children's novel:

¹ Editor's Note: LD&C's publication of this paper does not constitute endorsement of the use of Scrabble for language revitalization and other linguistic purposes. LD&C takes no position regarding the legal issues involved in using Scrabble as a linguistic tool. Anyone considering implementing Scrabble in the manner and for the objectives described in this paper should take care to ensure that their use is fully consistent with Trademark and other Intellectual Property laws in the countries where the project is to be implemented.

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It is the beginning of the twenty-first century. When a young boy or girl who lives in the city turns on the TV or VCR in their free time, more often than not they will be greeted by Mickey Mouse or some sort of Pokémon. It's as though your soul and mind are transported to the magical country in which these friends of yours live, even though it's unclear where they come from or what tribe they belong to. And all of the things that you were interested in and familiar with in your own land are soon forgotten.

(Kuular 2004:1, translation mine)

Though globalization is frequently perceived as a destructive influence on small cultures and languages, as indicated by the quote above, some of its facets can in fact be channeled toward supporting these cultures. Just as literature can be translated from one language into another, thereby enriching the recipient language's literary repertoire, so foreign concepts that are useful for maintaining their source cultures can be translated into minority languages and tried out to see whether they will be beneficial there as well.

One American export that has all the signs of being useful for supporting mother-tongue use in local language communities in their battle against an encroaching majority language is that of Scrabble. As most readers are probably already aware, this is a popular board game in which players compete to score the most points by building words in a crossword-like fashion (Figure 1):

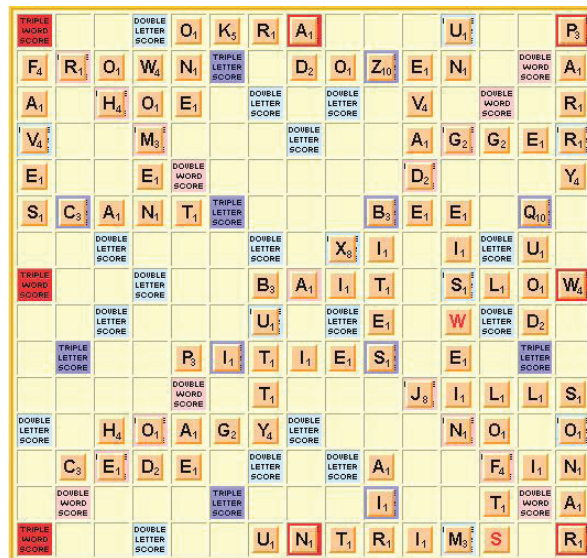


FIGURE 1: English Scrabble game in progress

Though crosswords originated in the English language only about a century ago (Jensen 1997:1), this concept very quickly spread to many other languages. Likewise, the

Scrabble game concept has been translated and made commercially available in 29 major languages (Welsh being the smallest with 500,000 speakers) as shown in the following list, according to various websites devoted to playing Scrabble (primarily <http://www.gtoal.com/wordgames/details/>). One thing that makes Scrabble so popular cross-culturally is that people of all languages enjoy playing games with their mother tongue, and literate peoples enjoy playing games with the written word.

Commercially-available Scrabble versions in major languages/orthographies

Indo-European: Afrikaans, Braille, Bulgarian, Catalan, Croatian, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Icelandic, Italian, Norwegian, Polish, Portuguese, Russian, Slovak, Slovenian, Spanish, Swedish, Welsh

Non-Indo-European: Arabic, Hebrew, Malaysian, Turkish

Over the past 15 years, several grass-roots projects have emerged to translate the Scrabble concept, specifically with an eye towards using this game as a tool for maintaining endangered languages or for expanding the use of non-prestige languages. In other words, the organizers of these projects decided to attempt to harness globalization instead of letting their cultures be defeated by it. Table 1 shows the languages in which a mother-tongue version of Scrabble has been designed explicitly for such purposes and about which at least some information has been published:³

³ It was recently related to me that versions of Scrabble have also been designed for a few other Native American languages, such as Cree and Cherokee, but since no other information has been made public about these versions, I do not refer to them again in this paper.

Language	Primary location	Approximate # of L1 speakers	Year of Scrabble production	Project organizers
Dakelh (Carrier)	British Columbia	1,000	1994	William Poser and Yinka Déné Language Institute
Gwich'in	Alaska and NW Canada	300	2002	Craig Mishler and Kenneth Frank
Dakotah	North central USA and south Canada	19,000	2006	Tammy DeCoteau and AAIA
Haitian Creole	Haiti and United States	8.5 million in Haiti and 1.5 million in diaspora	2008	Benjamin Hebblethwaite
Tuvan	South Siberia	250,000	2009	Vitaly Voinov and Nikolai Kuular

TABLE 1. Languages with Scrabble for maintenance purposes

Dakelh and Gwich'in are endangered Athabaskan languages, while Dakotah is an endangered Siouan language. Haitian Creole is the language of widest communication in Haiti but is of less prestige there than French, with about half of Creole speakers unable to read or write in their mother tongue (Hebblethwaite 2009). Tuvan is a Turkic language that is one of only three Siberian languages not in immediate danger of being edged out by Russian (Vajda 2009:424) and that has, in fact, seen considerable growth in speakers' population size over the past several decades. However, although Tuvan is numerically the majority language in the Republic of Tuva, in terms of its prestige and domains of influence it functions as a "minorized majority language," to borrow a term from Tove Skuttnab-Kangas (2000:642).

In the rest of this paper, I will discuss the experience of producing Scrabble in these languages, based both on documentation on websites and in articles and on my own attempt to recreate Scrabble in the Tuvan language. First, I will briefly sketch out some of the benefits that a mother-tongue version of Scrabble can bring to its users in languages that need an extra boost. Then I will turn to some of the practical issues, both linguistic and non-linguistic, that are involved in designing a new version of Scrabble. I hope that the details included in this paper will serve as practical suggestions for anyone interested in producing a version of Scrabble as a tool for maintaining or revitalizing their language.

2. BENEFITS OF PLAYING SCRABBLE. The following discussion assumes that for Scrabble to have an impact in a language stabilization effort, literacy already exists or there are plans to introduce it in the language. If a revitalization project focuses solely on oral approaches to language preservation, it is unlikely that a game focusing on the written word

would be of much use.⁴ With this caveat in mind, we can look at some benefits of possessing a word game such as Scrabble in one's language. Though these benefits can easily be overlooked by a speaker of a majority language that is already inundated with such materials, they may be more obvious to speakers of a minority or non-prestige language in which mother-tongue materials are not widely available.

People of all languages have some sort of games as part of their culture. It is a truism, but a valuable one, to say that games are fun; the pleasure that they produce for players leads people to want to engage in these activities despite the fact that effort, whether physical or intellectual, must be exerted to do this. Since it often takes conscious effort for people to speak or read their native language if it is almost defunct, it stands to reason that making this process as attractive as possible can enhance serious attempts at language preservation. The Association on American Indian Affairs (AAIA) realized this in its strategy for revitalizing Dakota: "Members of the AAIA saw a need to incorporate the Dakota language in games, music and entertainment. They created a project called 'Skatapi,' which in Dakota means 'they play,' in an attempt to use a unique and fun approach to learning the language" (Nielsen 2006:4).

This tactic is obviously a great approach for teaching anything to children, including their heritage language. Games have significant potential as a pedagogical tool for children's literacy specifically because children do not object (or perhaps even notice) if they are learning something through play. Thus, the director of the AAIA's Native Language Programs notes that "Our main focus has been creating early childhood materials in Dakota, which is basically children's books, translating children's songs, videos and we're just starting on some interactive computer programs" (Nielsen 2006:3). But adults enjoy playing (and learning through play) as well, and board games seem to be just as popular among the adult population of the United States as they are among children. (If you are not convinced of this, just try Googling "board games for adults.") Of course, this may not be universally true in other cultures, but in my experience, most adults can be "convinced" to take time out of their busy schedules to play a game if they find the concept interesting or useful. The indigenous language archiving and revitalization website FirstVoices (<http://www.firstvoices.com/en/about>) has a "companion set of interactive online games designed to present the archived FirstVoices language data in creative learning activities." These games include such widespread concepts as Word Search, Sentence Scramble, and Hangman, all applied to the endangered languages of Canada.

Hebblethwaite (2009) gives an excellent overview of previous research indicating some of the positive things that Scrabble can offer its players. These include intense mental activity that hones cognitive skills, practice in applying economic principles, and the activation of language learning in classrooms. Hebblethwaite also points out that Scrabble can

⁴ As one anonymous reviewer pointed out, some reasons for which certain language communities may choose an orality-focused strategy for revitalization are "tradition (most of the world's languages have never been written), phonological and/or morphological complexity, or pedagogical efficacy (emphasis on speaking and listening is more likely to lead to fluency)." Useful general discussions of the pros and cons of literacy for language preservation efforts can be found in Hinton (2001:239-241) and Grenoble & Whaley (2006:116-121).

promote the use of a standardized orthography in contexts where variant orthographies exist: “Haitian Creole Scrabble can be a tool for the expansion of literacy, the reinforcement of existing skills and a means for semi-literates to transition out of defunct orthographies ... and into standard Haitian Creole orthography” (p.276).

Another of Hebblethwaite’s (2009:276) insights into the benefits of Scrabble that resonates with the findings of other Scrabble developers is that “Scrabble has the potential to impact players and observers through ... creative and competitive *group literacy*.” This is a very important point from a language maintenance perspective. Though crosswords and many other word games are both fun and useful for practicing one’s native language, they are based on individual effort. Scrabble, on the other hand, can only be played in a community, which is of utmost importance in maintaining a struggling language. Intergenerational transmission of a language is Factor 1 in UNESCO’s guidelines on language vitality and endangerment (UNESCO 2003). If Scrabble is played by players of different generations or levels of language fluency, a younger or less fluent speaker can see vocabulary items used by more fluent speakers that s/he may not have encountered before, or learn word forms that may previously have been unfamiliar. As Mishler & Frank (2002:5) point out in their description of developing Gwich’in Scrabble, the challenge process, in which one player contests the word used by another player, can lead to fruitful language learning: “A beginner can learn a lot from a fluent speaker through the challenge process.” One of the rules added to the Tuvan Scrabble instructions was formulated with this very goal in mind: a player must be able to at least attempt to define any word that s/he plays. If it turns out that the semantic boundaries of this word are blurry in the player’s mind, this provides a perfect opening for the word to be discussed with the other players.

Factor 5 of the UNESCO guidelines sheds light on another potential benefit of developing Scrabble in threatened languages:

New areas for language use may emerge as community living conditions change. While some language communities do succeed in expanding their own language into the new domain, most do not ... If the communities do not meet the challenges of modernity with their language, it becomes increasingly irrelevant and stigmatized.
(UNESCO 2003)

Looking at board games as a domain of use that can potentially be occupied by a local language may not be very useful in the North American context, where English, the language of wider communication, is already well-entrenched in this domain (see Grenoble & Whaley 2006:113). But the situation is very different with Tuvan, for example. In the twentieth century, Tuvan society saw the rapid introduction of new cultural domains due first to contact with, then inclusion into, the Soviet Union. The Tuvan language was successfully adapted to several of these, such as literature, broadcast media, and pop music. Following the collapse of the USSR, new domains, like the Internet and entertainment from the West (films, books, games, etc.) have continued entering into Tuvan society, but these, with very few exceptions, are available only in the Russian language, because it is not commercially viable to translate them into Tuvan. In regard specifically to board games, the number of these available even in Russian is still very limited, and of the ones that do exist, not many are imported into Tuva, for the same reason of commercial viability. Board games, there-

fore, seem to be a domain that is currently wide-open for the Tuvan language to occupy in Tuvan society.

Finally, possessing Scrabble (or any other globally popular game) in a local language may raise the prestige of this language in the eyes of both outsiders and mother-tongue speakers. For example, if Tuvan has this game but the neighboring Altai, Khakas, and Mongolian languages do not, foreigners who come in contact with Tuvan will be less likely to consider this language provincial and limited in scope, thereby engendering a feeling of linguistic pride in Tuvans themselves. Translating a game like this into the local language can also demonstrate to its speakers that producing such materials is not an unattainable goal and can encourage them to try their hand at developing and marketing other useful materials.

Having briefly looked at why Scrabble can be a valuable tool for language maintenance, let us now consider some practical steps that can be taken to craft this tool in a local language. We will look first at linguistic issues and then at non-linguistic ones.

3. LINGUISTIC ISSUES. There are several language-specific questions that anyone must think through when designing a version of Scrabble for a new language. These questions include: which letters to use; how to calculate their frequency; how many tiles to include; the name of the game; translating the instructions and board texts; and dictionary availability.

3.1. WHICH LETTERS TO INCLUDE. Each of the 26 letters of the English alphabet is included on a separate tile in English Scrabble, with different point values assigned based on each letter's frequency in the language. In other languages, however, it may be best to not include all of the letters present in the official alphabet, or to include more than one letter on some of the tiles.

3.1.1. NATIVE VERSUS NON-NATIVE PHONEMES. In Dakelh Scrabble, "rare borrowed sounds such as r and f" are left out because "the inclusion of these rare sounds skews the frequency distribution in undesirable ways" (Yinka Déné Institute 2006). Likewise, though the official Tuvan alphabet has 36 letters, four of these— ϕ [f], $\u0443$ [ts̺], $\u0443$ [ʃj] and $\u0443$ ('soft sign', indicates palatalization)—represent sounds that are not native to Tuvan and are used only in recent borrowings, primarily from Russian. This factor led to the decision to exclude these letters from the Tuvan Scrabble set.

Drawing a firm line between native and non-native phonemes can be a sticky issue, however, especially since languages tend to make this distinction in stages along a continuum (see Ito & Mester 1999 for a discussion of varying levels of phonological nativeness in Japanese). This question should be approached carefully, and of course in consultation with fluent native speakers, keeping in mind that some speakers may not consciously recognize some words as having been recently borrowed from the language of wider communication. It is also likely that some speakers will pronounce borrowed words that include non-native phonemes using the phonological system of their native language. For example, the affricate $\u0443$ [ts̺] in Russian borrowings is usually reduced to just the fricative [s] in word-initial and word-final position in Tuvan speech. In this case, a borrowing may with time

be incorporated fully into the borrower language, though orthographically it will remain foreign-looking.

Choosing to omit letters that are present in the official alphabet may be seen as a political statement amounting to a desire to reform the alphabet. Though native speakers may understand that certain letters in their alphabet are used only to produce foreign or recently-borrowed words, they may be completely in favor of letting these letters stay in the alphabet: this facilitates borrowing from the language of wider communication without having to re-imagine the spelling of the borrowed word in terms of a slightly different orthography. If this is the case (as it is with the Tuvan language), then it might be wise to explicitly state the reason for excluding the letters in question and tie this decision in with a rule that disallows foreign borrowings.

3.1.2. MULTIGRAPHS. In English Scrabble, each tile has only a single letter, even though English frequently represents certain phonemes with digraphs, such as *sh* and *th*. A different approach is taken by Hebblethwaite (2009), who argues that certain Haitian Creole digraphs (like *ou* and *ui*) should be combined on single tiles in Creole Scrabble whereas others (such as phonemically nasal vowels, written as digraphs in the standard orthography) should not be. The Catalan, Croatian, Hungarian, and Welsh Scrabble sets each include several digraphs. Tuvan Scrabble is currently being field tested to determine whether it is best to have phonemically long vowels (written in the Tuvan orthography as repeated identical short vowels, e.g. *oo* [o:]) on a single tile or to represent only short vowels on tiles, which can then be combined to produce words with long vowels.

There may occasionally be a tension between several factors in deciding whether to include multigraphs (i.e., digraphs, trigraphs, etc.) On one hand, we want our Scrabble set to be supportive of the standard orthography used in our language. Thus, Hebblethwaite (2009) notes that certain of the letters in Creole digraphs never appear independently, which would make it counterproductive to include them on separate tiles⁵ and may in fact encourage players to spell certain words contrary to the standardized Creole orthography. For example, having a *c* (which in Creole occurs only in the digraph *ch*) on a separate tile might “perpetuate the non-standard, French-influenced error of employing *c* for [k], represented consistently as *k* in Haitian Creole” (p. 295). On the other hand, the tiles should be designed in such a way as to produce maximum “crosswordability.” In a recent e-mail, Hebblethwaite writes that in his latest version of Creole Scrabble, the digraph *ch* has been split up onto separate tiles for the purpose of “having plenty of space to ‘crossword’” (Benjamin Hebblethwaite, p.c.). Presumably, this means that having the *h* free of the *c* on a separate tile allows it to be reused in forming other words that have only *h* but no *c*.

If many words in the language make use of a phoneme that occurs as a multigraph in the orthography, it may be a good idea to include that multigraph on a separate tile. At the same time, if there are too many multigraphs in the tile set, the game might be unwieldy and it may become too difficult to make much use of the crosswording principle. This may

⁵ This line of reasoning would also apply to the letter *q* in English, which only appears in the combination *qu* in native English words. Interestingly, a similar word game called Upwords™ does have *qu* as a digraph in its tile set.

be the case in the Gwich'in version of Scrabble, which represents 61 different phonemes on its tiles, including 32 multigraphs. The sheer number of different tiles makes it necessary for a double game set—200 tiles—to be used (Mishler & Frank 2002). At the same time, it is true that including several letters on a single tile allows orthographically longer words to be formed in a smaller space, and that this may be of advantage in languages whose words tend to be longer than those of English. Average word length is a concern that was raised by members of the Anishinabe nation (also known as Chippewa) in their deliberations about whether to produce a version of Scrabble in their language. In the end, they concluded that “their word sizes were too long” (Tammy DeCoteau, p.c.).

3.2. CALCULATING LETTER FREQUENCY. According to official Scrabble websites (such as http://www.hasbro.com/scrabble/en_US/story.cfm), Alfred Mosher Butts, who invented the Scrabble concept in the 1930s, started out by manually counting the letters on the front page of the New York Times and calculating their relative frequency. However, though such a corpus-based approach shows letter frequencies in a text as a whole, it is less than ideal for determining letter frequencies in relation to individual word forms, since the calculation includes identical words that appear many times in a text.⁶ One linguistics-related blog (Harley 2006) discusses problems in English Scrabble letter frequencies, noting that some tiles (such as *t* and *h*) are overrepresented because texts, including the front page of the New York Times, contain many words that frequently re-appear, especially function words such as *the* and *that*.

Thus, when calculating letter frequencies in the recipient language, it may better to use a list of only headwords (i.e., lemmas) from a dictionary or glossary. This is how letter frequencies were calculated for both the Dakelh and Dakotah Scrabble sets (William Poser, p.c.; Tammy DeCoteau, p.c.). However, using a pure headword list means that the letters used to produce inflected forms are not taken into account. If the rules of the Scrabble version you are producing stipulate that inflected forms may not be used in the game, then the headword approach is probably best. Alternately, a word list can be used that includes every word type in a text (including all inflected and derivational forms), but this too may produce some statistical skewing due to frequently-repeated morphemes, such as plurals or case endings.

With the development of technology since the 1930s, it is now possible to have a freeware computer program called *Scrabdes* (written by William Poser, see references) calculate your letter frequencies and tile values for you automatically, using a word list or text in any language that you provide as the program's base corpus. However, this is a Unix-based program, and installing it takes a bit more computer savvy than the average Windows user has.

Although it takes some extra work, letter frequency can also be calculated using programs that run in Windows or Mac OS. First, a word list should be created if one does not already exist in computer form. Ideally, the word list should be grounded in general-purpose language (i.e., not a glossary dealing with specialized fields such as medicine or

⁶ There are always more word tokens than word types in any natural text, to use corpus linguistics terminology.

law). Mine was obtained by loading the text of a Tuvan novel into a freeware program called *AntConc*, which, among other things, can automatically produce a list of all word types in a given file. Next, the word list should be opened in a word processor using an appropriate font. I used Microsoft Word 2003 for designing Tuvan Scrabble and reference this program in the following description. After the word list file is opened, the number of tokens of each letter can be found by using the ‘Replace’ function (Ctrl-H), replacing each letter with itself so as not to change the text. For example, replacing the character *d* with another *d* in this article (by pressing the button ‘Replace all’) shows me that I have 546 tokens of *d* up to this point. The same process can be used for determining the frequency of multigraphs, if these exist in your orthography.⁷ Finally, the number of tokens of each letter or multigraph should be divided by the total number of characters (spaces not included) in the word-list file, which can be found by looking at the Statistics drop-down box (Tools → Word Count).⁸ This will yield the frequency of each letter/multigraph in the file.

Once the letter frequencies have been established, the point values for each tile and the number of tiles for each letter or multigraph in the set can be determined. Typically, the less frequent a letter is, the fewer tiles it should have in the set and the more points should be assigned to it. The following table shows such a frequency calculation for Tuvan.⁹

⁷ Pete Unseth (p.c.) points out that this approach will count letters that occur in multigraphs twice if the letter in question also occurs apart from the multigraph. For example, if we take *qu* as a multigraph, replacing all tokens of *u* in the text would include all cases where it occurs in *qu* as well. Thus, one would want to subtract all tokens of *qu* from tokens of *u* by itself in order to get an accurate numerical representation of solitary *u* tokens.

⁸ If a text is used instead of a word-list, the total number of characters will include punctuation marks, but this too should not be problematic, since the same total number will be used as the divisor for each of the letters, making all of their frequencies relative to the same total figure.

⁹ Similar tables can be found for Latin in Mahoney & Rydberg-Cox (2001) and Haitian Creole in Hebblethwaite (2009).

Letters	%	# of tiles	Points	Letters	%	# of tiles	Points
А	12.5%	12	1	Б	1.67%	2	3
Ы	7.5	8	1	Й	1.51	2	3
Р	7.36	8	1	Э	1.4	2	3
Н	6.87	7	1	З	1.35	2	3
Е	4.98	6	1	Ж	1.19	1	4
Д	4.46	6	1	Ө	1.16	1	4
Л	4.4	6	1	Х	1.14	1	4
К	4.32	5	1	В	0.92	1	4
Г	4.24	5	1	ЭЭ	0.87	1	4
Т	4.08	5	1	ОО	0.34	1	5
И	3.72	4	1	УУ	0.28	1	5
У	3.46	4	1	ЫЫ	0.27	1	5
Ч	2.45	3	2	Я	0.2	1	5
П	2.36	3	2	ӨӨ	0.18	1	6
С	2.21	3	2	ИИ	0.15	1	6
М	2.16	3	2	УУ	0.11	1	6
Ү	2.15	3	2	Ъ	0.09	1	8
О	2.09	3	2	Ю	0.06	1	10
Ш	2.01	2	2	Ё	0.02	1	10
АА	1.88	2	3	blank		1	0
Ң	2.87	2	3	hyphen		1	0

TABLE 2. Frequency and point calculation of Tuvan Scrabble tiles

Whatever sort of corpus you use for determining the letter frequency, it will be difficult to be sure that your statistical analysis is accurate for the language's lexicon as a whole; the key thing is to do sufficient field testing of the trial version to determine whether the version is really playable. When I field tested my initial trial version (which did not have any digraph long vowels) with Tuvan friends, by the end of the very first game it became obvious to me that it was exceedingly difficult to produce any words that were longer than five letters, although many Tuvan words are longer than this. This result prompted me to rework our existing tile set to include long vowel digraphs. I also noticed that there seemed to be too many tiles with the letter *P* [r], likely due to this being the final letter of the Tuvan plural morpheme, which occurred often in the word list I used for my initial frequency calculation. Doing this sort of trial-and-error calibration should eventually lead to a tile set that is well adapted to your language's specific word-formation properties.

3.3. NUMBER OF TILES. At first glance, this aspect may seem unrelated to linguistic structure. English Scrabble has 100 tiles (as do the Malaysian, Polish, Romanian, Slovak, Spanish and other versions.) But there is nothing linguistically magic about this number, apart from the aesthetic value of ten squared. Other sets have differing numbers of total tiles. For example, Icelandic, Hebrew, and Greek have 104 (according to http://en.wikipedia.org/wiki/Scrabble_letter_distributions). Italian and Portuguese have 120. As already mentioned above, Gwich'in holds the record for the greatest number of Scrabble tiles in its set – 200. No version that I have been able to find has fewer than 100 tiles.

Related to this question is the issue of how many letters to allow on a player's tile rack per turn. The original English set the standard for most other versions at seven tiles. But this is not universal. Prior to 1989, when the rules were modified, German Scrabble had eight tiles on the tile rack (<http://www.gtoal.com/scrabble/details/german/>). The Gwich'in version uses ten tiles (Mishler & Frank 2002).

In fact, the specific linguistic features of the language in question must be taken into account when deciding how many tiles an optimal game configuration in this language will need. As we saw above in the Anishinabe case, some languages (typically agglutinating or polysynthetic ones) have a greater average word length than others. This means that not having enough tiles available may greatly reduce the number of words that can be played. Deciding how many tiles should be included in your Scrabble version also depends on what inflectional forms you will allow. If the rules allow no inflected forms at all (i.e., only dictionary headwords are permitted), the game will tend to have shorter rather than longer words. The Russian game *Erudit* allows nouns and adjectives to be used only in the nominative singular case. This type of restriction may make the game more challenging by limiting the words that can be produced, but at the same time it may circumscribe the game's usefulness as a pedagogical tool for learning the language's morphology, focusing instead mainly on its lexicon.

All of this is merely to say that the number of tiles to be included in your language's Scrabble version should be contemplated in connection with an examination of the language's properties, and then sufficiently field-tested.

3.4. THE NAME OF THE GAME. This is likely the first thing, and may be the only thing, that many speakers of the recipient language will come in contact with. Coming up with a catchy mother-tongue name for the game might be one of the best means of attracting potential players' attention. Such a name would also eliminate the problem of having an obviously non-native word – Scrabble – serve as the name of a game that is supposed to be about native words. Keeping the English name may in some cases trigger a group's sensitivity to globalization and produce an unfavorable reaction to the game before it is even out of the box. In Swedish, one of the Scrabble versions is called *Alfapet*. In Russian, as previously mentioned, it is *Erudit*. In Tuvan, the name of the game is *Sösteerek* (meaning something akin to 'wordiness').

3.5. INSTRUCTIONS AND TEXT FOR BONUS SQUARES. To have a fully functional game, players need to understand the rules/instructions. Will these be provided in the language of wider communication? Or can they be translated into the players' mother tongue, then

tweaked so as to reflect the specific features of the mother-tongue version that differ from those of the source? In some cases, language attrition may be so advanced that most players will not be able to make much sense of a translated instruction sheet dealing with a domain for which their language has previously never been used. In such cases, a bilingual instruction sheet (local language and language of wider communication) may be in order. A good deal depends on how skilled the translator is. In the case of Tuvan, which is still fairly vibrant, the instructions were translated from Russian by a professional Tuvan writer and translator (Nikolai Kuular, whose reference to negative globalization was cited at the beginning of this paper). It is interesting, and somewhat ironic, to note that the translator used several key terms borrowed from Russian in the instructions. Since no other board games had ever existed in Tuvan (besides the Tuvan version of chess), there were no native terms for the concepts of ‘game tile’ and ‘tile holder.’ Creating Tuvan neologisms for these concepts was possible, but in the end the translator decided that borrowing the Russian equivalents was the best way to go in this specific case. At the same time, to designate the Scrabble board’s bonus squares, the translator extended the existing Tuvan term *khana-karak* ‘chessboard square’ (itself a semantic extension of a term originally referring to the lattice-work frame of a Tuvan yurt).

Translating the texts for the bonus squares on the game board (e.g., double word score, triple letter score, etc.) is also desirable for imbuing the game with a mother-tongue feeling, but in some languages it might be difficult to come up with a translation of these texts that is both intelligible and compact. Using a symbol, such as 2X for ‘double,’ may in some cases be a viable way to achieve the goal of compactness.

3.6. DICTIONARY. In the English version of Scrabble, a player may challenge any word that another player uses, with the criterion of acceptability determined by the word’s presence in any standard English dictionary. In the Tuvan case, however, many speakers do not have access to a Tuvan dictionary, even though several such dictionaries had been available during the Soviet period. The publishing industry in Tuva suffered a severe blow from the collapse of Communism, and sufficient funding is very hard to obtain nowadays for projects such as a revision or reprinting of a dictionary. Tuvan scholars have been working on producing a new explanatory dictionary of Tuvan for the past decade, but entries for only about one-third of the alphabet have been published so far, and there is no indication of whether the project will come to fruition in the near future. This means that, for a large part of the Tuvan population, there is no immediate access to a formal orthographic standard for their mother tongue, and many people write however they please.

Realizing that such a state of affairs is not conducive to the reinvigoration of local literacy, the developers of Scrabble in Dakotah Sioux decided to produce a 207-page dictionary that would come with their game (see Figure 2). The only available Dakotah Sioux dictionaries prior to this had been produced more than a century ago and had by now become quite archaic. The Scrabble dictionary was devised using a communal approach—three tribal elders brainstorming Dakotah words by semantic domains (Nielsen 2006; Tammy DeCoteau, p.c.)—and the headwords were then used to calculate the letter frequencies and tile values for the game. (These frequencies and values were later revised by a process of trial-and-error in field testing [Tammy DeCoteau, p.c.]). It should be noted that all of this was accomplished without the input of a professional linguist, once again demonstrating

that the heart of language revitalization can be a fully grass-roots effort taking place completely within the language community.

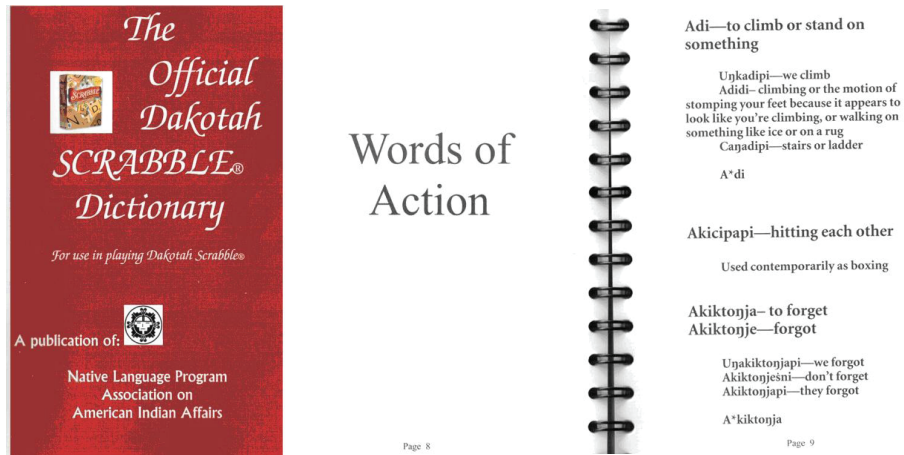


FIGURE 2. Cover and inside pages of Dakota Scrabble dictionary

4. NON-LINGUISTIC ISSUES. Once the linguistic questions involved in developing Scrabble in the local language have been resolved, several other issues still remain for consideration. The ones we will look at in this paper are: whether to adapt the board design to the receptor language culture; how to physically produce the game set; questions of copyright; and how to get the game into the hands of potential players.

4.1. BOARD DESIGN. It is of course easiest to just use an existing Scrabble board in the language of wider communication, as several of the minority language projects discussed in this paper have done, but it may be well worthwhile to follow through and re-design the board so that the text on it is in the receptor language. This can be done fairly quickly in a program such as Adobe PageMaker or InDesign. If the newly designed board is printed on a sheet of paper with an adhesive back, it can then be simply attached to an existing board. An alternative is to print out the board on a normal sheet of paper and laminate it (the thicker the laminate, the sturdier the board will be). In the Tuvan project, we also decided to make the board more visually appealing by changing the color scheme so as to reflect the colors of the Tuvan flag.

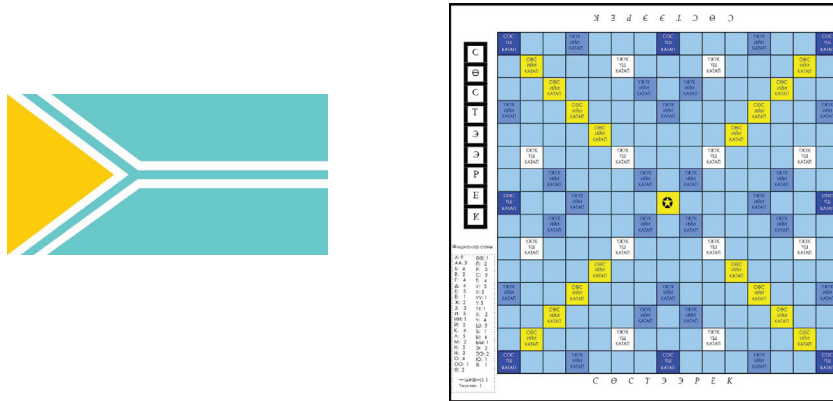


FIGURE 3: Tuvan flag (left) and Tuvan Scrabble board (right)

4.2. PRODUCTION. The main issues involved in producing the game set in your language will likely be cultural relevance and cost, and these may be in tension with each other. Trial versions of the game can in principle be handmade either from scratch or by re-using and modifying an existing set in another language. The Dakotah Sioux Scrabble project organizers decided to make thirty deluxe Scrabble sets for schools out of natural materials, including rawhide, leather, and stone. This was covered by a generous grant from the Hassenfeld Foundation. “We were trying to have the entire game made of things provided from Mother Earth ... We didn’t have to go to Minneapolis or somewhere to make something that’s really special, and we’re pretty proud that we did this with all of our local people” (Nielsen 2006:4). But the cost of purchasing a leftover deluxe set is prohibitive - \$300, while the simpler home edition of Dakotah Scrabble is sold for \$20.¹⁰ Hebblethwaite (2009:296) notes that even \$12.99 would be considered an exorbitant price for an average person to pay for a board game in Haiti.

The Gwich’in Scrabble set was much more down to earth. The project organizers followed the example of Dakelh Scrabble in printing out its characters on adhesive paper and attaching them to existing tiles taken from an English Scrabble set. Their tile racks were made from wooden wall mouldings bought at a building supply store (Mishler & Frank 2002:4). Another possibility suggested by Mishler and Frank is using a power sander to remove English letters from existing tiles (presumably in order to stamp, engrave, or burn Gwich’in letters in their place).

In the Tuvan situation, it would be wonderful if the game board and tiles could be carved from soapstone, since soapstone carving is a prized art form among the Tuvans. Luxury soapstone chess sets are produced in Tuva, but are typically affordable only to foreign tourists who can shell out \$500 for something this rare and beautiful. The prototype Tuvan Scrabble boards and tiles for field testing were made out of laminated paper, but one

¹⁰ The home-edition board is made of paper, while the letter tiles are made of wood and had the Dakotah letters stamped onto them by a group of children at one of the tribal schools (Tammy DeCoteau, p.c.)

Tuvan friend (Oleg Namdara, p.c.) has suggested that we could hire a local woodworker in Kyzyl, Tuva's capital, to make tiles and racks for future sets, while the boards could be printed on glossy photo paper and glued onto folding pieces of cardboard that usually serve as diploma holders in Russia. The cost-efficiency of this approach remains to be tested.

4.3. LEGAL ISSUES. Scrabble is a trademark owned by Hasbro Inc. in the United States and Canada and by Mattel Inc. elsewhere in the world. When the Association on American Indian Affairs (AAIA) contacted Hasbro about producing a Dakota Sioux version of Scrabble, the company gave its permission for project organizers to produce thirty educational sets and five hundred home sets (Nielsen 2006). This quick and positive response may have been primarily motivated by the personal interest of Alan Hassenfeld (Hasbro's former CEO and chairman) in the success of the project, but it surely provided Hasbro with very positive publicity and strengthened its image as a company that is interested in philanthropy and giving back to the community.

It is unclear whether this sort of positive response will be repeated by Hasbro towards other attempts at developing Scrabble in indigenous languages. On the one hand, if there are relatively few speakers of a language, there is no real financial gain or loss involved for the trademark-owning company if a minority language version is produced for language preservation purposes. On the other hand, as the recent hullabaloo over the game Scrabulous on Facebook shows (Musil 2008), Hasbro does not give *carte blanche* permission to just anyone who wants to "borrow" the Scrabble concept if there is money to be made on it. Nevertheless, Tammy DeCoteau of the AAIA has written (p.c.) that Alan Hassenfeld may be willing to stand behind other projects to produce Scrabble in indigenous languages of North America if he is approached through the AAIA. The Hasbro customer service department informed me (in an e-mail dated 1/22/10) that if Native American language groups are interested in applying for official permission to produce a mother-tongue version of Scrabble, they should send a fax to 1-401-727-5089, attention: Jo Ann Bryden. As for Mattel Inc., which owns the rights to Scrabble outside North America, a representative let me know in no uncertain terms (in an e-mail dated 1/20/10) that Mattel will be interested in licensing a minority language version of Scrabble only if there is significant commercial gain for the company from this endeavor.

4.4. DISTRIBUTION. Once the game is designed and manufactured, the main issue that remains is how to get the game sets out to potential players. In a country with a well-developed economy like the United States, making the game widely available may not pose any problem, but it certainly does in places like Tuva, where the economic infrastructure is highly dysfunctional. The capital city of Kyzyl does have stores in which items such as books and games are sold to the public, but this is not the case in many of the outlying towns and villages, which for the most part only have the equivalent of small grocery stores. According to Nikolai Kuular (p.c.), currently the chief editor of the Tuvan Publishing House, making even Tuvan books available to people outside of the capital is incredibly difficult. So it may take a good deal of creativity to figure out how to effectively distribute Tuvan Scrabble.

In light of the infrastructure obstacles, it is possible that the Tuvan Ministry of Education might be interested in introducing Scrabble to Tuvan-language schools around the Republic. Alternatively, interested Tuvans from outside the capital city may just have to come to Kyzyl in order to get a Scrabble set of their own, or ask their relatives in Kyzyl to procure one for them. What is ultimately needed to make any approach to distribution succeed is an insider in Tuvan society who sees the game's potential and gets excited about it enough to take responsibility for producing and distributing it. So far I have not been able to find such a person among my own limited sphere of acquaintances in Tuva (reactions to my prototype version have been limited to mild, polite interest in the game, but nothing more). My hope remains that someone will eventually catch the vision and run with it.

5. CONCLUSION. Translating the Scrabble concept to promote interest in local language use may seem like just a drop in the bucket in relation to the enormous task of language maintenance or revitalization. After all, isn't a game just a game? Nonetheless, in the Tuvan language, the equivalent metaphor about drops of water – “A drop helps the sea” (*dalaiga damdy duzaa*) – is seen as a positive encouragement to action, even if the action at first seems small and insignificant. There is another Tuvan proverb that seems applicable to the task of buttressing local languages as well: “A flock of magpies can catch and eat even a camel” (*demnig saaskan teve tudup čiiir*). This saying highlights the efficacy of teamwork and a communal approach to problem solving. Foreign linguists like Hebblethwaite, Poser, or Voinov can sometimes initiate the first drop in the sea, but they cannot be the flock of magpies that eat the camel. If the will of the speakers themselves is there, however, then a mother-tongue version of Scrabble, as well as other imported language games, may just prove to be an effective tool for channeling the forces of globalization to work for the good of local languages instead of for their annihilation.

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