Using all the Pieces to Solve the Puzzle: the Importance of Aboriginal Language Assessment in Child Populations

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Abstract

Canada's Aboriginal children lag behind national age-level norms in reading and writing. They also leave school earlier and in higher percentages than non-Aboriginal peers. At the same time, a growing body of evidence, both anecdotal and census-based, suggests that all of Canada's Aboriginal languages have declining numbers of fluent speakers and less than optimal intergenerational transmission. In this paper it is proposed that school success and language maintenance issues intertwine in a number of respects and that neither problem can be adequately addressed unless communities engage in the systematic evaluation of both Aboriginal and majority language knowledge. Problems that arise in testing child speakers of a polysynthetic language in a context of language attrition are briefly addressed. Key results obtained through the dual language testing of children in three Innu-speaking communities, one in Québec and two in Labrador, are presented. The discussion focuses on how these results are currently being used to inform community members about the state of language attrition and to optimize educational intervention strategies in both Innu and the local majority language.

Résumé

Les enfants autochtones du Canada sont à la traîne des normes d'âge nationales en lecture et en écriture. Ils quittent d'ailleurs l'école plus tôt et en pourcentage plus élevé que leurs pairs non autochtones. En même temps, un ensemble d'indices, à la fois anecdotiques et fondés sur les recensements, suggère que toutes les langues autochtones du Canada subissent une diminution du nombre de locuteurs qui parlent la langue couramment et souffrent d'une transmission intergénérationnelle appauvrie. Dans cet article, on propose que la réussite scolaire et les questions du maintien de langue sont entremêlées et qu'aucun des deux problèmes ne peut être abordé de manière adéquate à moins que les communautés ne participent à l'évaluation systématique des savoirs en langues autochtones et en langues majoritaires. On aborde brièvement des problèmes qui se posent dans l'évaluation des enfants qui sont locuteurs d'une langue polysynthétique dans un contexte d'attrition de langue. On présente ensuite des résultats-clés qui ont été obtenus par des essais chez les enfants dans trois communautés innues dont une au Québec et deux au Labrador. La discussion porte sur la manière dont ces résultats sont utilisés pour sensibiliser les membres de la communauté sur l'état d'attrition de la langue et pour optimiser les stratégies d'intervention éducationnelle en innu ainsi qu'en langue majoritaire.

Introduction

The present study investigates the benefits of documenting the lexical development of young Innu speakers in both of their languages of communication. It was undertaken in a bid to address two issues of urgent concern in many Aboriginal contexts in Canada: the rapid attrition of indigenous languages (Moseley, 2010) and the very low levels of school success of children, particularly for those living on reserves in particular (Macdonald & Wilson, 2013). It is our contention that language maintenance and school success issues intertwine and that neither problem can be adequately addressed unless communities engage in the systematic evaluation of the Aboriginal language knowledge of child speakers in parallel with the standard practice of evaluating majority language skills.

In support of this contention, we established dual-language evaluation projects in three Innu[73] communities, one in Quebec and two in Labrador, each representing a distinct sociolinguistic context. In the following pages, we will discuss the impact both the evaluation process and its findings have had on our partner communities.

Background to the Study

This study pulls together a number of different strands of research. Some of the key elements from each strand are included in the following sections.

Child knowledge and language maintenance

Although having a substantial body of child speakers is the key to the survival of any language, with the notable exception of Inuktitut (Crago, 1990; Crago & Allen, 1999; Taylor, 2003; Wright, Taylor, & Ruggiero, 1996) and to a lesser extent Cree (Morris, 2010), little attention has been paid to the state of child knowledge of most of Canada's Aboriginal languages which are still being transmitted from one generation to the next. In the case of Innu, the ancestral tongue of our participants, the topic of declining child knowledge was broached by

[73] Innu, also known as Montagnais, is an Algonquian language spoken in Quebec and Labrador.

Drapeau (1994) in the late 80's and early 90's in the context of an intergenerational study conducted in our Quebec partner community. To our knowledge no assessment of child Innu skills has ever been conducted in the two Labrador partner communities, and the issue of adult knowledge has only been addressed obliquely as various linguists have worked with highly fluent speakers for the purpose of creating grammars and dictionaries (Clarke, 1982; Mailhot, MacKenzie, & Oxford, 2013). This may be due to the fact that language attrition is a more recent phenomenon in the Labrador. Indeed, Mailhot (1993), who was involved in several different research projects in one of our partner communities from the 1960's through the 1980's, reports that finding Innu informants able to speak English or French in the initial years of her research was a challenge. Today, no more than two generations later, the situation is dramatically different and finding fluent child speakers is the new challenge.

Unfortunately, it seems that only when there are few young speakers left that interest in levels of child knowledge of Aboriginal languages becomes keen. This is particularly unfortunate given that it is much easier to sustain a living language than bring one back from the grave. Precise information concerning levels of child knowledge could be used to heighten awareness of language loss within communities, to inform language of education decisions, to strengthen applications for language maintenance funding, and to develop language maintenance strategies to ensure that intergenerational transmission continues.

Child language skills and school success

The lack of information about child knowledge of the Aboriginal language also impacts negatively on the identification of academically at-risk children, particularly given that many of the language difficulties of normally developing bilingual children are similar to those of language-delayed monolinguals (Paradis, Genesee, & Crago, 2011). Without some knowledge of the relative strength of both of a bilingual child's languages, it is easy to err in distinguishing learning disorders requiring professional intervention from normal bilingual lags which, in the case of Aboriginal children are exacerbated by poverty and low levels of parental education (Ball & Lewis, 2011; Macdonald & Wilson, 2013). In contexts in which resources are rare and communities are cash-strapped, identifying language and learning problems early and accurately is extremely important.

Assessing children in an Aboriginal language

Aboriginal language assessment presents the researcher with a number of challenges, starting with the fact that no normed instruments exist and that the development of normed testing instruments is compromised by a number of factors particular to Aboriginal linguistic contexts and languages. For instance, child lexical knowledge in a diglossic community where attrition is occurring may vary more as a function of family language use than of age, with five year olds sometimes proving more fluent speakers than teens (Morris & MacKenzie, 2012). Even within a single family, older and younger siblings can receive substantially different linguistic input and vary widely in their degree of mastery of the Aboriginal and majority language.

Dialects also vary substantially from one community to the next and even within a single community (Mailhot et al., 2013). As will be seen below these variations necessitate painstaking work in each community to establish a range of acceptable answers for lexical tasks.

The wide range of levels of fluency amongst child speakers also complicates the administration of all tasks which require that test-takers have achieved a certain level of phonological and lexical automaticity (Chevrie-Muller & Plaza, 2001). For instance, memory span is often assessed in Kindergarteners by having them repeat increasingly longer series of numbers, usually digits between 1 and 10. The assumption made by this task is that the five year olds have automatized low numbers to the point that they do not represent a lexical obstacle. In the case of child knowledge of a language undergoing attrition and spoken in a diglossic context, words like numbers, colours and body parts, typically overlearned in monolingual mother tongue contexts, may not be automatized at all. This has the effect of invalidating all tasks that assume basic word knowledge in all test takers (e.g. measures of memory, phonological awareness and morphosyntactic knowledge).

Typological differences between Aboriginal and majority languages further complicate testing. Canada's Aboriginal languages are polysynthetic in nature and heavily verb dominant[74]. In contrast, English and French are noun dominant and far less complex morphologically. Establishing word frequency counts - pillars of vocabulary testing in English and French - is a challenging undertaking in a polysynthetic language. Furthermore, even if word frequency were easy to calculate, few spoken or written corpora are available to determine what words children are exposed to and with what frequency. In short, lexical testing in an Aboriginal language frequently requires considerable rethinking of many basic majority language testing procedures.

Objectives

Three principle objectives underlie the present research. The first was to create Innu language assessment instruments that could be used to measure basic lexical and morphosyntactic knowledge of a wide range of child speakers. The second was to use these instruments in parallel with normed majority language tasks to track bilingual development over time. The final goal was to use the data collected to inform community and school practices pertaining to language use.

[74] In the Algonquian language family, approximately 75% of words in most dictionaries are verbs. In contrast, English has three nouns for every verb (Aitchison, 2003).

Methods

Instruments

Because of the aforementioned problems arising from widely varying levels of child fluency in Innu, the decision was made to limit testing in that language to expressive and receptive lexical knowledge, including prepositions, and a basic morphosyntactic component measuring knowledge of the plural, diminutive, obviative, reflexive and reciprocal. Lexical items were selected by domain (e.g. common household items, foodstuffs, school items, means of transportation, animals, everyday activities, summer activities, winter activities, etc.). The English equivalents of virtually all of the items used in Innu testing figure in the Macarthur Development Communicative Inventories (Fenson, 2003). No attempt was made to use phonological or semantic distracters. The creation of plausible distracters is a challenging undertaking in a polysynthetic language. Furthermore, placing addition obstacles before children who were likely to struggle with basic words was not considered to be a good strategy.

French majority language tasks were taken from *Nouvelles épreuves pour l'examen du langage* (Chevrie-Muller & Plaza, 2001) and English tasks were adapted from the French in order to arrive at results that could be compared across communities. Majority language vocabulary skills in children in grades 3 and 4 were assessed using the French and English versions of the *Peabody Picture Vocabulary Test* (L. M. Dunn & Dunn, 1981; L. M. Dunn, Thériault-Whalen, & Dunn, 1993) and literacy skills were assessed with rapid naming, sight word reading and reading comprehension tasks.

Participants

The data discussed were collected in three Innu communities, one in Quebec and two in Labrador, varying in terms of their geographic isolation and the local majority language. The majority language in the Quebec community is French, while the two Labrador communities use English. The Quebec community and one of the Labrador communities (Labrador 1) can be readily accessed by road. The second Labrador community (Labrador 2) can normally be reached by plane or by boat only, although limited overland access is possible in the winter months.

The children in the Quebec community are schooled in Innu in Junior Kindergarten (half days) and in a 50-50 blend of Innu and French in Senior Kindergarten (full days). Thereafter, schooling is all in French. The Labrador children are schooled in English throughout and start school at the Senior Kindergarten level.

The number of participants per grade level and community is summarized in Table 1.

Community	JK	SK	1	2	3	4
Quebec	36*	41*	4	19	9	17
Labrador 1	-	26	5	-	-	7
Labrador 2	-	11	2	2	1	3

*Children being assessed longitudinally.

Table 1: Participants by community and grade level

The higher number of participants in the Quebec community is attributable to the fact that longitudinal tracking of the children's French skills was established in the 2008-9 school year. The infrastructure established to handle French testing and the experience derived from several years of assessment greatly facilitated the inclusion of Innu when the school chose to add it to the testing repertoire of Kindergarteners in 2012. In addition, other Innu results were made available from large-scale child testing done in 2010 (Morris & MacKenzie, 2012) In Labrador, Innu and English assessments were implemented simultaneously in 2012, a decision that resulted in a slower start up and less systematic coverage of the Kindergarten to Grade 4 population than in Quebec. Over the coming years bilingual testing will hopefully become as systematic in Labrador as it currently is in Quebec.

Testing

Innu testing was done by fluent speakers from each community. All the assessors were well known to the children. Majority language testing was done by literacy resource staff in the two Labrador communities and by trained university research assistants in Quebec.

In Quebec, Junior Kindergarten children are currently being assessed twice a year - fall and spring - in both languages. From Senior Kindergarten on, the children are assessed in both languages in the spring. Longitudinal testing should begin in Labrador in the fall of 2013 and will follow the Quebec pattern.

Results

Results will be presented in two stages: an overview of the key Innu and majority language findings across the three participating communities and a more detailed look at the longitudinal development of the language skills of preschoolers in the Quebec community.

The broad picture

Although the Innu evaluators in all three partner locations are cognizant of the fact that the use of Innu is in decline, the low levels of word knowledge found in many of the children assessed came as a surprise, as did the percentage of children with little to no Innu in certain classes.

Table 2 provides a summary of the initial expressive and receptive Innu results compiled from Kindergarteners across the three communities using the same instrument with the appropriate lexical adaptations. Children with no Innu or only a few words are not included in these

numbers. The numbers of such children per group evaluated is provided in the No Innu column.

Community	N	Age M	ExVoc M (SD)	RecVoc M (SD)	No Innu
Quebec	36	5.23	45 (18)	45 (12)	5/41
Labrador 1	15	5.60	46 (17)	54 (13)	11/26
Labrador 2	19	5.39	44 (18)	55 (17)	1/11

Table 2: Innu results for Kindergarten cohorts by community

The performance of the children was compared by community using a Kruskal-Wallis Independent Samples Test. For the expressive results no significant differences were found ($H(2) = .101$, ns). In contrast, the receptive results of the Quebec group were found to be significantly lower than those of the two Labrador groups ($H(2) = 6.274$, $p = .044$). It should be noted that while the children in the Labrador communities performed at the same expressive and receptive level, the ratio of non-speakers to speakers of Innu in each cohort suggests there is a much greater degree of community language attrition in the Labrador 1 community, the less isolated of the two. The Quebec results show a significantly lower level of receptive Innu knowledge than either Labrador community but a level of language maintenance across families comparable to that of Labrador 2 and superior to that of Labrador 1. Only 12% of the Quebec cohort had no Innu, as opposed to 42% of the Labrador 1 cohort. This somewhat paradoxical situation will be addressed in the discussion.

The majority language results for the children with Innu from Table 2 (N = 36 for Quebec, N = 15 for Labrador 1 and N = 10 for Labrador 2) are summarized in Table 3. To ensure the comparisons are as valid as possible across the two languages tested, only results from identical memory (number repetition) and lexical (expressive and receptive knowledge of colours, shapes and body parts) tasks are presented here.

Community	Memory M (SD)	ExVoc M (SD)	RecVoc M (SD)
Quebec	4.21 (2.27)	29.33 (5.42)	17.82 (2.32)
Labrador 1	4.27 (2.09)	21.93 (8.75)	14.27 (5.08)
Labrador 2	2.60 (1.71)	13.50 (7.96)	14.44 (3.05)

Table 3: Majority language results for Kindergarten cohorts by community

A Kruskal-Wallis Independent Samples test reveals no differences between the three communities on the measure of memory ($H(2) = 5.100$, ns). However the same test shows significant differences for both expressive vocabulary ($H(2) = 23.038$, $p < .0001$) and for receptive vocabulary ($H(2) = 10.228$, $p = .006$), with the Quebec cohort leading the way in both measures.

While a cursory examination of these results might suggest that better child knowledge of Innu correlates with weaker knowledge of the majority language, the situation is far more complex. Before discussing the relative strength of languages, it is useful to consider how Innu and the majority language develop over time in the same children. To this end, results from two cohorts of preschoolers tracked over a year in both Innu and French will be examined.

Language development in preschoolers

Table 4 presents the Innu results achieved by 32 Junior Kindergarten children tested in September and April, and 34 Senior Kindergarten children tested in June of their Junior Kindergarten year and again in April of the Kindergarten year.

A paired samples t-test reveals that the expressive and receptive gains over time of both cohorts are significant. The result for the Junior Kindergarten cohort on the expressive measure was $t(31) = 10.019$, $p < .0001$ and on the receptive measure it was $t(31) = 12.710$, $p < .0001$. For the Senior Kindergarten cohort the expressive result was $t(36) = 8.844$, $p < .0001$ and the receptive result $t(36) = 7.404$, $p < .0001$.

Measure	Junior K M (SD)	Senior K M (SD)
Expressive 1	32.88 (19.97)	41.41 (21.95)
Expressive 2	56.88 (21.01)	58.35 (20.54)
Receptive 1	38.41 (11.95)	42.29 (13.45)
Receptive 2	56.28 (14.48)	52.62 (13.77)

Table 4: Preschoolers' Innu language results over time

Given that the Junior Kindergarten group was instructed exclusively in Innu and the Senior Kindergarten group partially in Innu, finding significant gains in Innu is not surprising. What is less predictable is what is going on at the same time in French, not a language of instruction for the Junior Kindergarten children and one of two languages for the Senior Kindergarten cohort.

Results from the tasks administered in French are reported in Table 5. In light of spatial constraints, results were compiled by field: memory, expressive vocabulary and receptive vocabulary.

Measure type	Junior K M (SD)	Senior K M (SD)
Memory 1	30.23 (13.67)	38.18 (12.12)
Memory 2	38.67 (10.51)	42.50 (9.51)
Expressive 1	28.52 (13.13)	44.12 (9.44)
Expressive 2	34.81 (11.56)	51.79 (8.05)
Receptive 1	32.84 (14.39)	51.50 (12.57)
Receptive 2	46.63 (12.75)	63.68 (10.62)

Table 5: Preschoolers' French language results over time

Paired samples t-tests reveal that gains made in memory, expressive vocabulary and receptive vocabulary are all significant. It should be noted that some children were unable to complete certain tasks in the fall. This explains the difference in the degrees of variance below. For memory $t(29) = 6.348$, $p < .0001$; for expressive vocabulary $t(30) = 5.950$, $p < .0001$; and for receptive vocabulary $t(31) = 12.231$, $p < .0001$. In Senior Kindergarten, the same pattern can be observed: for memory $t(33) = 3.665$, $p = .001$; for expressive vocabulary $t(33) = 6.928$, $p < .0001$; and for receptive vocabulary $t(33) = 10.075$, $p < .0001$.

Table 6 presents correlations found between Innu and French results for each test time in Junior K and Table 7 presents the Senior K equivalents.

Interestingly, while both Junior and Senior Kindergarten children make substantial gains across all skill areas in both languages, it is only in the Junior Kindergarten class that significant correlations can be found between the two languages. In Senior Kindergarten, French results correlated strongly with other French results, and Innu results with other Innu results, but there were few to no correlations found between French and Innu skills.

Fr/Innu		IEx 1	IEx 2	IRec 1	IRec 2
FMem 1	r	.30	.19	.43*	.30
N = 30	sig	.112	.320	.018	.107
FMem 2	r	.32	.29	.47*	.41*
N = 30	sig	.090	.122	.009	.024
FEx 1	r	.48**	.27	.46**	.303
	sig	.006	.146	.009	.098
FEx 2	r	.30	.09	.32	.13
	sig	.100	.608	.074	.497
FRec 1	r	.41*	.28	.46**	.35
	sig	.018	.115	.008	.053
FRec2	r	.43*	.38*	.43*	.35
	sig	.014	.031	.015	.052

* p<.05, **p<.01

Table 6: Correlations between Innu and French Results in Junior Kindergarten

Fr/Innu		IEx 1	IEx 2	IRec 1	IRec 2
FMem 1	r	.26	.34*	.29	.19
	sig	.145	.048	.100	.276
FMem 2	r	.17	.25	.21	.13
	sig	.335	.153	.231	.469
FEx 1	r	-.02	.13	.13	.16
	sig	.910	.469	.473	.363
FEx 2	r	.005	.09	.07	.12
	sig	.977	.601	.679	.487
FRec 1	r	.083	.22	.27	.27
	sig	.642	.222	.126	.117
FRec2	r	.05	.18	.14	.22
	sig	.793	.299	.426	.218

* p<.05

Table 7: Correlations between Innu and French Results in Senior Kindergarten

Individualized results in both languages

The systematic evaluation of children in both Innu and the majority language has resulted in a dual language database which is allowing us to situate the performance of children with respect to pre-existing test norms (e.g. the norms found in Chevrie-Muller and Plaza (2001)) and to develop community norms against which individual performances can be compared. Furthermore, as the longitudinal axis of the testing is extended year after year, and children first assessed as preschoolers accede to literacy, it becomes possible to identify early predictors of reading success development and thereby engage in more accurate diagnostic work than was previously possible in bilingual Aboriginal populations. For example, the pilot cohort of the Quebec community, first tested as Kindergartners in 2008, has just completed Grade 4. A study is presently underway to use their results to identify tasks administered at the preschool level that pick out children currently experiencing reading difficulties.

Discussion

The discussion will be conducted by pulling together information from different elements of the Results section to target the objectives established at the outset, i.e. to consider what bilingual testing can contribute to language maintenance and to school success.

Language maintenance

The implementation of child testing in Innu has contributed to consciousness-raising in a significant manner. As evaluators from each community sat with children and watched them struggle to name common objects, the degree of endangerment of Innu became very clear. Individualized testing has given language loss a face, or, more exactly, many faces. While testing results have proven disheartening for language experts in all three communities, they have had the effect of spurring community members to act to better protect the language. For instance, the Quebec community has moved to strengthen preschool instruction in Innu and to better inform parents of preschoolers as to how they can provide stronger language support at home.

The importance of awareness of language loss within a community should be not underestimated. There is reason to believe that a higher level of awareness of language attrition in the Quebec community resulting from the presence of a linguist in the village and the dissemination of her research findings (Drapeau, 1991, 1994; Oudin & Drapeau, 1993) has played a role in maintaining the language across more families than in Labrador 1, a community with comparable majority language exposure.

The longitudinal results of the Quebec preschoolers have also made a positive contribution to language maintenance in all three communities. The significant gains made on all tasks in both languages by both the Junior and Senior Kindergarten cohorts show that Innu can successfully be used as a language of instruction without compromising learning in the majority language, a source of concern for many parents. Although a considerable body of research indicates that bilingual children transfer many skills readily across languages in a school setting[75], few studies have looked at diglossic context involving endangered Aboriginal languages. The impressive gains in French skills made by the Junior Kindergarten children receiving instruction exclusively in Innu might serve to reassure parents and protect the constantly threatened school presence of Innu.

On a similar note, the significant correlations between Innu and French knowledge across some tasks administered at the Junior Kindergarten level have contributed positively to Innu maintenance in the Quebec community, with the results being used in support of a campaign to get young parents to share more language, preferably Innu, with their children.

The weakening of correlations between Innu and French once the children are in Senior Kindergarten is impossible to explain at this point in time. It may be related to the growing importance of French in the children's lives and the stagnation of their Innu skills. It is interesting to note that the results achieved by the Junior Kindergarten cohort in Innu by the time of the post-test are comparable or even superior to those achieved by the Senior Kindergarten children. More information concerning the importance of strong Innu skills should become available as preschool factors contributing to literacy success are further explored.

Another important contribution of the test results has been to lead to a more realistic appraisal of the current language context in each of the three communities. The poor academic performance of Innu children has frequently been attributed to French being the second language of the children (Roy, 2006). While this was certainly true 30 or 40 years ago (Drapeau, 1994; Mailhot, 1993), it is not the case for many Innu children today. The results from testing in both languages across all three communities show very clearly that Innu and majority language skills are not in the type of a distribution one would expect to find in a true second language context. For most children tested, the majority language is the one in which they know the most words and Innu is either an alternative language of communication or, in the case of a growing number of children, a poorly known second language. Recognizing that this is the case is critical to making optimal language maintenance decisions.

School success

The dual language assessment of Innu children has had a number of positive effects related to school success. The simple fact of conducting tests in both of the children's languages has led to more collaboration and exchange between Innu and non-Innu staff in all three communities. Interest in Innu and awareness of the language and its degree of endangerment has also been heightened. Furthermore, a number of Innu speakers have now been trained in testing and in test development. Hopefully this will ensure sustainability in the future.

As previously mentioned, the results from both languages have been used to generate community norms. In the case of the majority language, these norms are serving two purposes. A comparison of community norms and test norms has facilitated identification of the children's general strengths and weaknesses. This in turn has allowed for the development of a broader range of remediation strategies for classroom teachers to deploy. For instance, the results from the word repetition tasks allowed us to identify and address a widespread phonological perception problem. Additionally, and perhaps most importantly, individualized dual-language testing is allowing for the more accurate identification of children who are truly at risk and not simply typically developing bilinguals in an Aboriginal context.

When Innu was added to the testing repertoire in the Quebec community after four years of systematically tracking children in French, the degree to which we were able to pinpoint the specific difficulties of children increased dramatically. In a number of instances, children with identical profiles in French can now be classified differently in terms of risk on the basis of what we are able to learn from their Innu results. Some children who have relatively limited vocabularies in French prove to have strong Innu skills in reserve, leading us to believe that they are typically-developing bilingual learners who will likely pick French up readily with increased exposure. Other children with identical French profiles have been found to have little to no knowledge of Innu and are likely language delayed or impaired, and in need of immediate remediation.

Overall, the testing results have allowed schools to allocate their very limited resources more judiciously and to implement more classroom-based remediation tailored to the changing needs of cohorts. The testing of

[75] See August and Shanahan (2008) for an excellent overview of research in the field.

the children and the sharing of the overall results with each school community had also served heighten teacher awareness of the problems faced by Innu-speaking children and, in the case of the Quebec community, generated new respect for the Innu preschool teachers who are trying to achieve a fine balance between Innu and French in their classrooms.

Conclusion

Being able to look at each child across a variety of tasks in both languages of communication and over time as well allows for a much greater level of validity and reliability in assessment and this is in turn supporting both language maintenance and school success.

While the results achieved in the course of the dual language assessment have been disheartening for community members fighting for the survival of Innu, the numbers are currently being used to argue for more Aboriginal language funding and more widespread child assessments. Other Innu communities are considering implementing similar testing in the coming year. As for school success, the testing has provided a more fine-grained analysis of the problems Innu children are experiencing and this is helping both the children and their teachers.

Aboriginal communities are a complex jigsaw of intertwining social, linguistic and cultural pieces that all contribute in different ways and degrees to the overall picture. While the contours of some of the pieces of the puzzle are likely to remain poorly defined for some time to come despite the efforts of researchers, the contours of many of the Aboriginal language pieces are imminently amenable to better definition through the systematic testing of children. When these contours are sharpened, the ability of communities to counter language attrition and schools to better help the bilingual children in their care is greatly enhanced.

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