



# Learning to Read and Write Cherokee: Toward a Theory of Literacy Revitalization

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In an effort to revitalize the Cherokee language, Cherokee Nation launched an immersion program for preschool and elementary children in Tahlequah, Oklahoma. Central to the curriculum is literacy in the Cherokee writing system known as *syllabary*. This study focuses on sociocultural and sociolinguistic evidence toward an understanding of the syllabary's role in Cherokee immersion, children's general literacy skills, and the micro- and macrolevel contexts of literacy in syllabary. We consider how an examination of Cherokee-literacy revitalization—as a feature of broader language revitalization—offers insight into the challenges and opportunities facing those who teach endangered languages through school-based immersion.

## INTRODUCTION

In the United States, only 20 of approximately 175 Native American languages have speakers across generations (Krauss, 1996). With fewer and fewer children learning these languages, all might disappear by the end of the 21st century as result of language shift (Mithun, 1999). Among members of Cherokee Nation in northeastern Oklahoma, few under the age of 40 are considered fluent speakers of the Cherokee language (Cherokee Nation, 2003). This lack of parental-aged speakers also means that children are not acquiring the language at home; consequently, Cherokee is considered “definitively endangered” according to UNESCO's (2003) Language Vitality Scale of Intergenerational Language Transmission and may disappear in the next 50 years (Krauss, 1998).

To combat this dire forecast, Cherokee Nation launched an early childhood language-immersion program in 2001 in Tahlequah, Oklahoma, as part of its language- and culture-revitalization initiatives. Novel in its approach and unprecedented in its scope, the program started serving

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3- and 4-year-olds in one preschool classroom and has since grown to five classrooms for children aged 3 to 8 years, preschool through third grade. In August 2009, a fourth-grade classroom will be added, and with each subsequent year a new grade will be added up through the sixth grade. The ultimate mission of Cherokee immersion as stated in its 10-year Language Revitalization Plan is “for children to acquire the Cherokee language in such a way that it will become an integral part of their lives and their knowledge about the world around them” (Cherokee Nation, 2003, p. 36). Achieving that mission has involved the development of a standards-based curriculum for each grade level in which Cherokee language is taught, with academic content in language arts, mathematics, science, social studies, health, fine arts, cultural behaviors, and technology. Prominent in this curriculum—and, hence, in the nine classroom teachers’ instructional practices—is the teaching of reading and writing in Cherokee syllabary, the writing system developed by George Guess (or Gist), a Cherokee best known as Sequoyah.

Although Fishman (1991) contends that literacy is not a requirement for reversing language shift, we find that, in the case of the Cherokee Nation immersion program, literacy in syllabary plays an important and complementary role to orality, and that the revitalization of Cherokee *literacy* is integral to the larger mission of Cherokee *language* revitalization. And yet, to date, only Bender (2002a, 2002b, 2008) has systematically explored the contemporary functions of literacy in the Cherokee syllabary among Eastern Band Cherokee members in North Carolina. In this study, we seek to better understand the role that literacy plays in Cherokee Nation’s language-revitalization program through an examination of evidence collected over the course of 1 year on kindergarten, first-, and second-grade immersion students’ learning of Cherokee syllabary. In doing so, we consider both the microlinguistic phenomena associated with children learning to read and write Cherokee and the more macrolevel sociocultural and sociolinguistic features of the context in which this learning is situated. Such studies are needed; as Bender (2002a) concludes, “Cherokee literacy teaches us something important about Cherokee modes of communication and self-expression while enriching our cross-cultural understanding of what it means to read and write” (p. 1).

A number of researchers have noted the social construction of literacy among Indigenous peoples. Kulick and Stroud (1993), for example, found that Gapuners in Papua New Guinea “have their own ideas about reading and writing, generated from their own cultural concerns”—not those borrowed from foreign influences (p. 55). McLaughlin’s (1989, 1992) research on Navajo literacy validated a “critical model of literacy” where “the meanings of literacy derive from the individual’s struggle for voice within institutional and ideological contexts in which forms of oral and written communication are embedded” (1989, p. 276). His work underscores a need “to understand literacy as a set of concepts and practices that operate within a cultural context” (1992, p. 20). Similarly, Street (1997) characterized Hornberger’s (1997) collection of studies on Indigenous literacies in the Americas as providing recognition that becoming literate involves more than just decoding skills—it also involves “learning the underlying cultural meanings and uses of that particular literacy” (p. 377). The collection puts forth a range of evidence of how local literacies are “invented often by indigenous peoples in the face of the dominant literacies of the colonial powers” (p. 378). In Chiapas, Mexico, Rockwell (2005) found that “Indigenous groups appropriated writing and used it for their own purposes” (p. 23). Finally, Francis and Reyhner (2002) contend that “Bilingual Indian children learning to read and write encounter challenges and opportunities that are different in some significant ways from both their monolingual and bilingual peers who speak a ‘language of wider communication’”

(p. 131). These studies are noteworthy for the comprehensive range of macro- and microlevel issues explored, which, combined, provide a research base for understanding the complexities of learning to read and write an endangered Indigenous language as a component of language maintenance or revitalization.

This study contributes to the above literature by offering unique sociocultural and sociolinguistic evidence toward the development of a more explanatory theory of language revitalization, particularly with regard to literacy. In doing so, it addresses the questions: (a) What role does the Cherokee syllabary play in the Cherokee Nation language-immersion classrooms? (b) What are children's general abilities on various reading and writing tasks? (c) How are children's developing reading and writing abilities situated within the sociolinguistic context of Cherokee syllabary? To answer these questions, we first review two theoretical models that serve to frame and inform our study: Joshua Fishman's (1991, 2001, 2006) Graded Intergenerational Disruption Scale and Nancy Hornberger's (2003) Continuum of Biliteracy. Combined, these theoretical models allow for a holistic understanding of both the literacy experiences of children in the immersion school and the relevant sociocultural and sociolinguistic contexts for the function of literacy in reversing Cherokee language shift. We then provide an overview of our research methods and our roles as researchers. That leads us to an examination of linguistic and sociolinguistic evidence, starting at the microlevel of the classroom and the children's performance, and moving to the macrolevel, characterized by the sociocultural and sociolinguistic facets of Cherokee syllabary usage. By way of discussion, we offer a nuanced conceptual model for understanding the revitalization of Cherokee literacy as a feature of broader language revitalization efforts. Finally, we consider how an examination of Cherokee-literacy revitalization offers insight into the challenges and opportunities facing those who teach endangered languages through school-based immersion.

## A THEORETICAL FRAMEWORK FOR UNDERSTANDING CHEROKEE-LITERACY REVITALIZATION

### Understanding Cherokee Literacy Through the Graded Intergenerational Disruption Scale

Joshua Fishman has formulated a model for both describing linguistic situations and prescribing steps for reversing language shift (RLS). His Graded Intergenerational Disruption Scale (GIDS; 1991, 2001, 2006) has been operationalized in numerous endangered language contexts—including Cherokee (see Peter, 2007). The scale comprises eight stages that an endangered language community may target in their attempts at RLS, with stage 8 representing the “programme minimum” for “numerically and politically weak language-in-culture settings” (2006, p. 96). Stages 8 through 5 are at the more severe end of intergenerational disruption. Reversing language shift at these stages are attempts to attain stable diglossia, a situation in which one language is used for purposes of wider communication, such as government, media, and schools; while a second language, the endangered language, is used locally, in homes and neighborhoods. Stages 4 through 1, by contrast, transcend diglossia and represent attempts to situate the endangered language in increasingly broader contexts and at levels of higher sociocultural status; or, in Fishman's words, “to push on beyond these stages [8 through 5] into the upper reaches of sociosymbolic life” (2006, p. 97).

Of particular relevance to this study are Stages 5 and 4a, and the attempts being made by Cherokee Nation to “transcend diglossia” by supplanting English with Cherokee language and literacy in as many arenas as possible—most visibly and effectively in the immersion school. Stage 5, on the “weak side” of GIDS, “entails formal linguistic socialization,” most often involving literacy, that “adds additional varieties to the learner’s repertoire, above and beyond those that can be acquired in the largely oral and familiar interaction within most family-neighbourhood- and community-intergenerational situations” (Fishman, 2006, p. 96). Although this stage is characterized by schooling in a sense, it is done outside the realm of compulsory education and is particularly suited for adults. In the case of Cherokee-language revitalization in Cherokee Nation, as will be discussed in greater depth below, the majority of teaching and learning of Cherokee literacy has targeted stage 5 and has been geared primarily toward fluent Cherokee-speaking adults who want to learn the syllabary particularly for reading religious texts.

Stage 4, in contrast to stage 5, falls on the “strong side” of language-revitalization efforts and 4a in particular represents schooling *in lieu of* compulsory education that is substantially under the control of the endangered-language community. In this setting, schools are required to adhere to minimal standards imposed by the state but are afforded some autonomy in decisions related to curriculum, length of the school day and year, and inclusion of desirable experiences for students. In comparison to stage 5 activities, education at stage 4a can entail significant costs for the community, and Fishman (2006) warns that only “demographically and economically strong” communities can be successful at this stage; in fact, he notes that these programs can result in educational quality inferior to the mainstream system (p. 98). We will return to this warning in our final discussion.

With regard to the teaching of Cherokee literacy, the primary difference between these two stages is the domain in which literacy instruction takes place: In Stage 5, literacy instruction for old and young occurs *outside* of compulsory education; whereas in Stage 4a, literacy instruction occurs as part of schooling *in lieu of* compulsory education. Fishman views Stage 4a as having greater potential in reversing language shift than stages 5 through 8 on the scale because it is here that social power on the part of the community is fostered. Indeed, in the case of the Cherokee-immersion school, personnel issues and curricular and instructional decisions are made solely by Cherokee Nation, and attempts are made to insert Cherokee-ness in every aspect of the program. Although the Cherokee language-immersion program may be located at Stage 4a on the GIDS, the shifting sociolinguistic domains in which the syllabary is learned and used present special circumstances for Cherokee-language immersion, as we will see in our attempt to operationalize the model.

### Understanding Cherokee Literacy Along the Continua of Biliteracy

In addition to the GIDS, we draw upon Nancy Hornberger’s (2003) “continua of biliteracy,” which offers “a framework in which to situate research, teaching, and language planning in linguistically diverse settings” (p. xv). Although all 12 continua (there are 3 continua each for the categories of context, media, development, and content) could be operationalized within an examination of Cherokee literacy, of particular relevance to this study are 3 continua that, according to Hornberger, intersect to define the biliteracy context: the micro–macro continuum, the oral–literate continuum, and the monolingual–bilingual continuum.

The micro–macro continuum is useful for illustrating how sociolinguistic and sociocultural phenomena can be understood using both micro- and macrolevels of linguistic analysis, and serves to contextualize across space and time phenomena that exist along the other two continua. Along the oral–literate continuum, for example, literacy practices in Cherokee syllabary are interrelated with Cherokee orality, and the fluid nature of that relationship ranges from the macro- to the microlevel of analysis. At the macro level, the creation of Cherokee syllabary served to fundamentally alter literacy practices among Cherokee speakers; while the microlevel reflects the connection between children’s second-language acquisition of Cherokee in an immersion setting, and how their oral skills in the language interact with their developing literacy in syllabary. Finally, the monolingual–bilingual continuum represents most broadly the Cherokee-language revitalization enterprise. The macrolevel end of the continuum is where we situate the phenomenon of Cherokee language shift, historically and socioculturally, from monolingualism in Cherokee to bilingualism in Cherokee and English, to near universal monolingualism in English. Contemporary attempts at reversing language shift through school-based language immersion, then, tend to represent more microlevel aspects of language planning, including the curricular and instructional roles of Cherokee and English and the developing bilingualism of children in the program.

In Table 1, we illustrate the oral-literate and monolingual-bilingual phenomena particular to the Cherokee context within Hornberger’s (2003) sociolinguistic framework. It is our contention that an examination of the contexts of biliteracy as conceived through the three continua described above, within stages 5 and 4a of GIDS, provides parsimoniousness and explanatory

TABLE 1  
Micro- and Macrosociolinguistics Considerations of Cherokee Language Revitalization

		<i>Levels of Social Interaction</i>	
		<i>Micro</i>	<i>Macro</i>
<i>Levels of Linguistic Analysis</i>	Micro	<p><i>Micro–Micro</i></p> <ul style="list-style-type: none"> <li>• Features of Cherokee orality and literacy, including orthography, morphology, and syntax, examined microlinguistically</li> <li>• Immersion children’s developing Cherokee literacy skills as analyzed through the Cherokee Language Immersion Literacy Assessment</li> </ul>	<p><i>Macro–Micro</i></p> <ul style="list-style-type: none"> <li>• The contrasting bilingual language experiences of immersion teachers and their students, analyzed through classroom observations of teacher–student interactions</li> <li>• The school-to-home literacy connection, analyzed through a home literacy questionnaire.</li> </ul>
	Macro	<p><i>Micro–Macro</i></p> <ul style="list-style-type: none"> <li>• Juxtaposition of traditional versus contemporary use of syllabary, examined ethnographically</li> </ul>	<p><i>Macro–Macro</i></p> <ul style="list-style-type: none"> <li>• Domain shift of Cherokee literacy from stage 5 to stage 4a, examined historically and socioculturally</li> <li>• Cherokee language shift and revitalization, examined as a sociolinguistic phenomenon</li> </ul>

power for understanding Cherokee-literacy revitalization. We now turn to the micro- and macro-level evidence that operationalize this theoretical framework.

## METHODS OF RESEARCH AND RESEARCH CONTEXT

The research from which this paper draws is part of a larger, 9-year examination of the nature and effects of Cherokee Nation's attempt at reversing language shift through early childhood immersion. As long-term consultants and advisors to the project, we have engaged in numerous activities at the programmatic level, providing teachers with professional development, advising on curriculum and materials development, facilitating stakeholder meetings, and test development, training, and administration. Through this relationship with Cherokee Nation, we have also been granted internal review board approval and access to the school setting and the broader community for the purposes of research and have collected data to address a range of questions through various methodological techniques (see, for example, Hirata-Edds, 2006; Montgomery-Anderson, 2008; Peter, 2003; Peter, 2007; Peter & Hirata-Edds, 2006; Peter, Hirata-Edds, & Montgomery-Anderson, 2008).

This particular inquiry into the children's acquisition of Cherokee literacy began as part of an annual administration of language assessments developed for the unique purpose of gauging immersion students' developing language skills, including vocabulary knowledge, listening comprehension, oral expression, morphological understanding, and their progress in these skills from one year to the next. Until spring of 2008, these language assessments focused on listening and speaking skills. But, with increased curricular and instructional emphasis on literacy, particularly as students reached first grade, we worked with teachers and curriculum staff to develop and administer the Cherokee Language Immersion Literacy Assessment (C-LILA; Cherokee Nation, 2008). The C-LILA, as both an assessment instrument and research tool, elicited valuable information for teachers and curriculum staff regarding the reading and writing abilities of immersion students—information that has helped them in considering necessary curricular and instructional adjustments to encourage development of these abilities.

As useful as the C-LILA results alone were, however, it soon became apparent that learning to read and write an endangered language through school-based immersion involves a number of interacting sociocultural and sociolinguistic factors requiring more qualitative methods to examine. And so, to answer the question of the role that the Cherokee syllabary fulfills in the language-immersion classrooms, we reviewed each level's curriculum and the literacy standards therein, as well as the literacy materials at teachers' disposal. In addition, we collected data through participant observation in five immersion teachers' (one kindergarten, two first-grade, and two second-grade) classrooms and collectively logged approximately 40 hours of observation. Over the course of the year in which these data were collected, we also met with teachers on nine different occasions, for approximately 80 hours of professional development workshops related to the curriculum, instruction, and assessment of reading and writing. Central to those workshops were opportunities for teacher reflection, similar to what Yonemura (1982) calls "teacher conversations," informal discussions whose goals are to "bring to full awareness neglected perspectives on teaching, its complexity and richness as a practical art" (p. 241). These teacher conversations were recorded in field notes, which we later reviewed for comments relevant to teachers' personal experiences becoming literate in Cherokee as well as their professional experiences of teaching Cherokee literacy through immersion.

To understand further the sociolinguistic context in which children's literacy in Cherokee is situated, we draw from the results of a Home Literacy Questionnaire administered to parents of kindergarten, first-, and second-grade students during the year of the study. The questionnaire comprised items that sought to establish the extent of literacy practices in the immersion students' homes, including the number of books in English and Cherokee and the frequency with which parents and children read together in either language. In sum, our mixed methods approach constitutes what Greene, Caracelli, and Graham (1989) call a "development design" in which the results of one method "are used to help select the sample, develop the instrument, or inform the analysis for the other method" (p. 267). This is particularly appropriate for the intent of our study and serves "to increase the validity of constructs and inquiry results by capitalizing on inherent method strengths" (p. 259).

The teachers of the three classrooms considered in this study are all native speakers of Cherokee, but only one, a first-grade teacher, has a regular, elementary Oklahoma teaching license. The others were recruited to the program primarily based on their fluency in the language and their interest in teaching, and have learned the trade largely through workshops provided by the authors and some formal coursework taken at the local college, Northeastern State University. All five grew up in the Tahlequah, Oklahoma area. Their immersion teaching experience ranges from 5 years for one of the second-grade teachers (who began teaching at the preschool level), to just 1 year for the other second-grade teacher; the kindergarten teacher had been involved for 4 years and the two first-grade teachers had taught in the immersion program for 1 year at the time of this study.

Their students, 20 kindergarten, first-, and second-graders, all began the immersion program as preschoolers or prekindergartners and come from families most dedicated to immersion schooling beyond early childhood. In fact, the parents of the second-grade students have been the strongest advocates of the program; one family moved to Tahlequah from Tennessee for the sole purpose of enrolling their children in the immersion school. Most, but not all, of the parents have taken some Cherokee-language classes themselves; however, the majority have only basic language skills. Most of the families have Cherokee heritage and are registered members of Cherokee Nation, although that is not a requirement for enrollment in the school. The students participated in the literacy assessment with parental permission.

We work with Cherokee Nation by invitation and are conscientious of our role as non-Native Americans, as well as of the negative sentiments that some Native Americans associate with non-Native scholars. Encouraged by the experiences of others who had formed effective partnerships with community members with whom they worked (see, for example, Linn, Berardo & Yamamoto, 1998), we attempt to play the role that Dorian (1998) calls "information-disseminator and consciousness-raiser" (p. 21) by presenting the Cherokee story as objectively as possible while acknowledging that our perspectives are shaped by our particular backgrounds and worldviews and do not necessarily represent all of the viewpoints of Cherokee Nation citizens.

#### INVESTIGATING IMMERSION CHILDREN'S ACQUISITION OF CHEROKEE LITERACY

As mentioned above, the questions this study seeks to answer emerged as a result of findings from the C-LILA administered to Cherokee-immersion students in grades K–2. At the

microlevel of social interaction, the results of the C-LILA document immersion children's acquisition of particular reading and writing skills from kindergarten to first grade, and from first grade to second. A single assessment was developed in the hopes that the results would provide clear cut-off scores between the three grades for the purpose of establishing meaningful and realistic grade-level expectations. Thus, the assessment was designed to serve the dual purpose of gauging children's developing reading and writing skills and guiding teachers and curriculum staff in their goal-setting for each level.

The C-LILA consisted of nine reading sections and six writing sections focusing on curricular-level academic standards and language-learning goals and outcomes. The reading section focused on basic skills such as identifying initial and final sounds, recognizing sight words, and gauging vocabulary knowledge. It also included items to measure higher-level reading abilities, such as classifying words into categories, finding sentences to match pictures, predicting what comes next, and comprehending longer texts. The writing section focused on students' abilities to write from dictation single syllabary letters, whole words, and complete phrases; and included two open-ended sections, one at the sentence level and the other at the story level. Both the reading and writing components included tasks that required students not only to know the syllabary and the sounds represented by select syllabary, but also to understand morphological markers of person, number and tense, and meanings of the words. Administration of the C-LILA took place on May 23, 2008, with 5 kindergartners, 6 first graders, and 9 second graders, for a total of 20 children. Teachers worked in teams to score the tests during a workshop in June. Discrete-point items were scored objectively, and a rating system was established for the two open-ended writing sections.

On the reading test, all three levels obtained their best results in the two phonological awareness sections (word-initial and word-final syllables) and word recognition; weaker results were obtained in classifying words into categories, selecting word opposites, getting the main idea, predicting, and using context clues to complete sentences. Furthermore, the reading results did not demonstrate, as clearly as hoped, breaks between grade levels. Although scores between kindergarten and second grade differed considerably, differences in scores between kindergarten and first grade, and between first grade and second grade were not as divergent, and, in fact, first graders fared only marginally better than their kindergarten counterparts overall.

On the writing test, all three levels obtained the best results in the two dictation sections that focused on sound-symbol correspondence of isolated syllabary; weaker results were obtained in the two open-ended sections. As with the reading results, the writing results overall showed that scores between kindergarten and second grade differed considerably; however, differences in scores between kindergarten and first grade were not as divergent. More importantly, first graders fared *worse* than their kindergarten counterparts in total score.

Once the scores for both components of the C-LILA were compiled, we met with teachers to discuss the results, possible explanations for the results obtained, and implications of the results for classroom instruction. It appeared that, in general, the results bore out teachers' impressions of the children's skill levels, which teachers believed to be shaped by factors including the child's age of first enrollment and regularity of attendance, the teachers' own knowledge of literacy pedagogy, the instructional materials available to them, and the amount of parents' support of literacy activities at home. Combined, this information helped to anecdotally explain the children's overall limited achievement in relation to the expectations established by the curriculum, and particularly the low achievement of first graders relative to kindergartners.

The considerations raised by the teachers also led us to examine, in greater depth, the microlinguistic characteristics of the writing system and of how the unique features of Cherokee syllabary shape both the orality and the literacy acquisition of children in immersion. Thus, understanding the C-LILA results necessitates a discussion of the language itself.

### LINGUISTIC AND ORTHOGRAPHIC FEATURES OF THE CHEROKEE LANGUAGE

Cherokee is a Southern Iroquoian language related to Northern Iroquoian languages such as Seneca, Oneida, and Mohawk. Like many other Native American languages, Cherokee is characterized by a complex morphological marking system used to convey information (Mithun, 1989). Cherokee verbs, for example, require a minimum of three parts. The first required part is the person prefix that indicates who is acting. The middle part, or the aspect stem, consists of the verb root (meaning) along with information that indicates the “completedness” of the action (aspect). The last part of the word is the final suffix that, when combined with the aspect stem, further specifies the timeframe and completedness of the action (Montgomery-Anderson, 2008).

The Cherokee writing system is considered a syllabary because each character, with a few exceptions, represents a syllable. More technically, Cherokee is a moraic system in which a grapheme represents a mora, or a “phonological unit intermediate between a phoneme and a syllable” (Rogers, 2005, p. 14) comprising not an entire syllable (onset, nucleus, and coda) but an onset–nucleus combination or the coda. The contemporary Cherokee syllabary consists of 85 moraic characters and the nonmoraic /s/ used for onset clusters and in the coda position (Rogers, 2005). The syllabary and corresponding phonetic transcriptions are displayed in Figure 1.

Linguists studying Cherokee note that the syllabary, as a medium for learning the language, has some disadvantages. The Cherokee syllabary is an underdifferentiated system because some suprasegmental features and phonemic contrasts such as glottal stops, aspiration, vowel length, and tone are not represented in the orthography, but are important for

D	a	R	e	T	i	ḍ	o	ᵐ	u	T	v
ᵐ ga	ᵐ ka	ᵐ ge	ᵐ gi	ᵐ go	ᵐ gu	ᵐ gv					
ᵐ ha	ᵐ he	ᵐ hi	ᵐ ho	ᵐ hu	ᵐ hv						
ᵐ la	ᵐ le	ᵐ li	ᵐ lo	ᵐ lu	ᵐ lv						
ᵐ ma	ᵐ me	ᵐ mi	ᵐ mo	ᵐ mu							
ᵐ na	ᵐ hna	ᵐ ne	ᵐ ni	ᵐ no	ᵐ nu	ᵐ nv					
ᵐ qua	ᵐ que	ᵐ qui	ᵐ quo	ᵐ quu	ᵐ quv						
ᵐ sa	ᵐ s	ᵐ se	ᵐ si	ᵐ so	ᵐ su	ᵐ sv					
ᵐ da	ᵐ ta	ᵐ de	ᵐ te	ᵐ di	ᵐ ti	ᵐ do	ᵐ du	ᵐ dv			
ᵐ dla	ᵐ tla	ᵐ tle	ᵐ tli	ᵐ tlo	ᵐ tlu	ᵐ tlv					
ᵐ tsa	ᵐ tse	ᵐ tsi	ᵐ tso	ᵐ tsu	ᵐ tsv						
ᵐ wa	ᵐ we	ᵐ wi	ᵐ wo	ᵐ wu	ᵐ wv						
ᵐ ya	ᵐ ye	ᵐ yi	ᵐ yo	ᵐ yu	ᵐ yv						

FIGURE 1 Cherokee syllabary chart and corresponding phonetic transcriptions.

Downloaded By: [Peter, Lizette] At: 01:00 30 November 2009

communication (Rogers, 2005). Moreover, Montgomery-Anderson (2008) points out that the morphological forms of Cherokee do not always correspond exactly to the pronunciation of the syllabary characters. For example, the first and third person forms of some verbs are indistinguishable when written in the syllabary, even though their pronunciation is quite different. So, as Peake Raymond (2008) notes, “the Syllabary is an effective means to access pronunciation and meaning of expressions to the already fluent speakers, but this is not the case for non-native speakers” (p. 11).

Cherokee lacks a standardized written form and spellings may change to reflect dialectic and idiosyncratic pronunciations of words. This becomes somewhat problematic in a classroom context—teachers have related to us that difficulties occur even for them when they read words written by someone who speaks differently. We have also observed on several occasions teachers negotiating the meaning of a word that is not spelled the way that they are accustomed to saying it. Moreover, given that the immersion teachers speak different dialects, it is likely that students are presented with different pronunciations—and hence spellings—of words throughout the course of their immersion education. The fact that teachers are themselves second-language readers and writers of Cherokee, as we shall see below, contributes further to inconsistencies in both the oral and the written language that is taught.

Despite the limitations of Cherokee syllabary—which are not necessarily dissimilar to those of other orthographic systems—fluent and literate Cherokee speakers use the syllabary effectively, relying on context to indicate the proper pronunciation in instances of ambiguity. Additionally, linguistically speaking, the syllabary serves several purposes. For instance, although many phonological changes occur in everyday spoken Cherokee, such as the deletion of final vowels; when written in syllabary, the underlying structure of words is preserved. In this sense, Montgomery-Anderson (2008) notes, the syllabary “often serves as a sort of interface between the actual pronunciation and the underlying form” (p. 17).

## THE ROLE OF SYLLABARY IN CLASSROOM PRACTICE

Our discussions with Cherokee-immersion teachers and curriculum planners combined with observations of classroom language teaching suggest that the limitations of the syllabary are downplayed—if not completely ignored. Instead, the focus is on making the reading and writing of syllabary an integral part of the entire language-learning endeavor. In fact, the kindergarten curriculum (Cherokee Nation, 2005) addresses 10 standards for reading and writing compared to 3 for listening and speaking; the first-grade curriculum (Cherokee Nation, 2006a) addresses 11 standards for reading and writing but only 3 for listening and speaking; and the second-grade curriculum (Cherokee Nation, 2007) addresses 23 standards in reading, writing, and literature compared to only 7 listening and speaking standards.

The emphasis on literacy over orality has important consequences in the classroom. Ideally, in the context of learning a morphologically complex language such as Cherokee, written texts serve to visually reinforce grammatical patterns that students are exposed to orally. However, our classroom observations reveal the challenges that teachers face in using literacy instruction as an effective oral language learning and reinforcement tool, particularly with regard to the more complex features of Cherokee morphology such as verb markers and inflections that indicate person, number, and tense. This interrelationship between orality and literacy can be

illustrated by considering the C-LILA results in light of assessments of children's oral production of Cherokee verbs. In previous research (Peter, Hirata-Edds, & Montgomery-Anderson, 2008) we found that even after as many as 4 years in immersion, children's spoken language did not consistently mark verbs appropriately to indicate person, number, and tense. If, as Francis and Reyhner (2002) point out, ". . . skilled second language readers are also developing their oral language proficiencies as they work with texts in their second language" (p. 136), it is not surprising to find that, on the C-LILA, even second-grade children had difficulty recognizing the morphological markings that they read, and this, in turn, greatly hindered their ability to match sentences to pictures, to predict what would happen next, and to comprehend longer texts. These considerations lead us to a more macrolevel analysis of the bilingual language experiences of the immersion students and their teachers.

### TEACHERS' AND CHILDREN'S BILINGUAL LANGUAGE EXPERIENCES

Children's experiences learning to read and write Cherokee through immersion in a compulsory education context must be understood as different from those of their teachers, and examining these differences further elucidates the results of the C-LILA and the phenomenon of Cherokee-literacy revitalization.

In her study of the role of the syllabary in Eastern Band Cherokee language classrooms in North Carolina in the mid-1990s, Bender (2002a) suggests that the Indigenous writing system, although not considered appropriate for children to learn, was nonetheless omnipresent and served a semiotic function "in (re)producing appropriate sociocultural boundaries and in indexing locally meaningful categories of knowledge and persons" (p. 93). When the syllabary was used in K–12 classrooms, she found that it was written in very stylized and deliberate ways as compared to the more prevalent Romanized transcriptions of Cherokee; was exploited by students for iconic rather than linguistic purposes; and was greatly associated with all things Cherokee, including history, culture, traditional places, clan names, and Sequoyah—the folk hero attributed with developing the syllabary single-handedly. In sum, teachers and students in Bender's study treated the syllabary as something important and special, more difficult to learn than the easier phonetic transcription, indexed to their Christian faith, and, in a sense, "mysterious."

In the Cherokee Nation immersion-school setting in Tahlequah, Oklahoma, the presence of the syllabary also fulfills the semiotic functions that Bender describes. Poster-size versions of the original syllabary charts, pictures of Sequoyah, traditional texts displaying the syllabary, and cultural artwork of the seven Cherokee clans decorate all of the classrooms. However, unlike the Eastern Band Cherokee classrooms that Bender studied, use of the syllabary in Cherokee Nation's immersion classrooms extends beyond the semiotic and into the functional and instructional realms. From the time children enter the immersion center and with rare exception, the Cherokee syllabary is the only writing system they see and learn. Labels for furniture, name tags on cubbies and on desks and tables, classroom instructions—all are written only in syllabary. The very first letters that they form as early as 3 years of age are syllabary, and their reading practice consists exclusively of sounding out words spelled in syllabary eventually toward the goal of comprehending longer texts. So, in contrast to the approach used by the teachers in Bender's study of Cherokee-language classrooms in North Carolina, the heart of the Cherokee Nation language-immersion curriculum in Oklahoma is the syllabary, and teachers in all

classrooms dedicate a large portion of their instructional time teaching children the syllabary for the dual purpose of learning new vocabulary and gaining knowledge in all academic areas, including mathematics, science, social studies, geography, music, language arts—and, technology, where opportunities for literacy practices have been created at a rapid pace. For example, in the time since data for the study were collected, second- and third-grade students each received a laptop computer with much of the interface and software in Cherokee syllabary. Students have begun to type their schoolwork on the syllabary keyboard, and are even sending instant messages to one another, all in syllabary.

The fact that the English alphabet, including the use of Romanized phonetic transcriptions of the Cherokee syllabary, is rarely, if ever, used during the course of the regular instructional day suggests that Cherokee is the first language that most of the children in the immersion program learn to read and write, even though from a verbal standpoint Cherokee is their second language (Table 2).

By contrast, immersion teachers reported to us that Cherokee was the language spoken in their homes and English was not learned until they attended school. However, for each of them, *English* was the language they first learned to read in. In fact, all but one claim to have not learned to read Cherokee syllabary until they were adults, and several only after starting work at the immersion school. Only one teacher learned to read in Cherokee while enrolled in a bilingual third-grade program, but that program lasted just 1 year. In contrast to the children's language experiences, the teachers' orality and literacy is reversed (Table 3).

Thus, teachers' and students' bilingualism and biliteracy occur on opposing ends of the oral–literate and monolingual–bilingual continua. This scenario presents challenges for teachers as they prepare materials and instructional approaches for the teaching of reading and writing and serves to partly explain the C-LILA results. The teaching of Cherokee syllabary has historically targeted adults who were fluent in the language and therefore had the oral skills necessary for comprehension. For them, mastering the sound–symbol correspondence of the syllabary was simply a matter of rote memorization. Teachers' general lack of formal training in literacy theory and pedagogy requires them to draw extensively on their linguistic knowledge and intuitions

TABLE 2  
Matrix of Immersion Children's Language Experiences

	<i>Orality</i>	<i>Literacy</i>
Cherokee	L2	L1
English	L1	L2

TABLE 3  
Matrix of Immersion Teachers' Language Experiences

	<i>Orality</i>	<i>Literacy</i>
Cherokee	L1	L2
English	L2	L1

about “literacy.” Thus, it is understandable that teachers’ reading lessons focus heavily on the memorization of syllabary—which children excel at as early as kindergarten—and less on higher-level reading skills such as finding the main idea, reading for comprehension, and guessing new words through the use of context clues.

One exception to the above is worth noting: a first-grade teacher was hired after retiring from 26 years as a first-grade public school teacher in an English-only setting. Observations of and conferences with this teacher indicate that her experience teaching in a monolingual English environment has shaped her expectations of her students, leaving her frustrated that her Cherokee-as-a-second-language students are not successful at the kinds of literacy tasks her monolingual first graders could do with relative ease. More than any of the other teachers, her lessons focused on rigid memorization, scripted lessons, and excessive practice in penmanship. As the C-LILA results show, students develop high levels of fluidity in their writing of the syllabary by second grade (Figures 2, 3, and 4), perhaps due to her instruction, but the

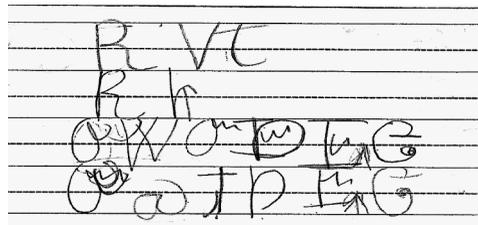


FIGURE 2 C-LILA “Storytelling” kindergarten writing sample.

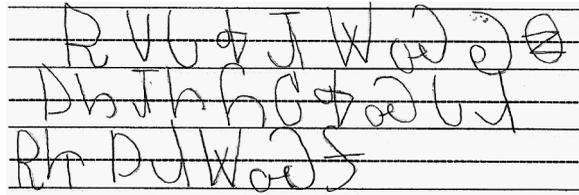


FIGURE 3 C-LILA “Storytelling” first-grade writing sample.

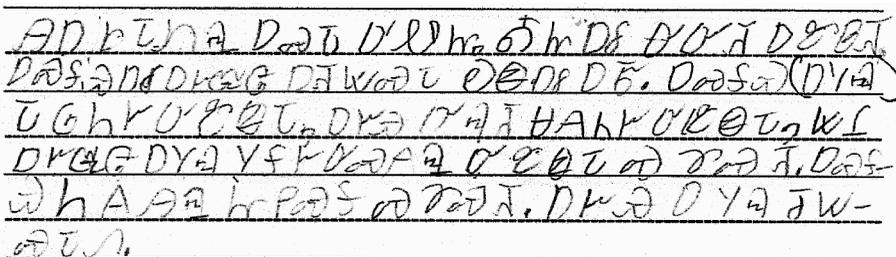


FIGURE 4 C-LILA “Storytelling” second grade writing sample.

limited achievement of first graders on specific skills of reading and writing compared to kindergartners may suggest that her extensive experience in a monolingual English classroom has not readily translated to success in a second-language-immersion context, at least with regard to literacy.

The C-LILA results, then, support a conjecture that teachers' experiences learning to read Cherokee shape the kinds of experiences that they provide for their students, possibly limiting the opportunities for students to engage more complex reading and writing skills.

### THE SHIFTING DOMAINS OF CHEROKEE SYLLABARY

Situating the teachers' and learners' experiences within an even broader, macrolevel context reveals how the shift from stage 5 to stage 4a on the Graded Intergenerational Disruption Scale—and from the historic to the contemporary domains of Cherokee syllabary use—has significant implications for Cherokee-language revitalization and specifically literacy revitalization, which we consider here at length. This shift has been investigated in other communities in which the introduction of literacy in schools has faced obstacles and controversy. Leap (1991), for example, describes the conflicting attitudes among members of the Northern Ute toward the school-based introduction of literacy in Ute, a traditionally oral language. On one side of the debate are those who perceive literacy in Ute as providing a foundation for English literacy and stronger academics overall; on the other side, are typically tribal elders who view the public use of written Ute as an interference with God's will and a reversal of tribal leadership. Similarly, Watahomigie and McCarty (1997) describe literacy in Hualapai as “a renegotiation of cultural values and role relationships vis-à-vis both ‘traditional’ and ‘modern’ institutions—inseparable from the history of individuals and the community, and from underlying relations of power” (p. 105).

Although Cherokee has had a written syllabary since 1821, the contrasting experiences of children learning to speak, read, and write Cherokee and those of their teachers can be seen as another example of “renegotiation of cultural values” within the context of contemporary attempts to reverse Cherokee language shift and can be observed at a macro sociocultural level along both the oral–literate and the monolingual–bilingual continua. Unlike the majority of American Indian languages that have writing systems borrowed and adapted from the Roman alphabet primarily by linguists and missionaries, the Cherokee syllabary holds the distinction of being one of the few American Indian languages developed by a native speaker of the language. There are few actual accounts of how Sequoyah conceived of the syllabary, but according to traditional lore, he was intrigued by what he saw as the “talking leaves” of English settlers and set about to create a system of writing Cherokee, which he completed over the course of 12 years. Soon after the publication of his 83-character syllabary in 1821, its use rapidly spread, particularly for personal correspondence, record-keeping and accounting, documenting medicinal plants, and the maintenance of government documents (Bender, 2002a). In 1828, the American missionary Samuel Worcester had the syllabary type cast for printing, leading to publications such as the *New Testament* and the first Cherokee-language newspaper, the *Cherokee Phoenix*, and creating more widespread literacy in Cherokee (Bender, 2002a; Rogers, 2005). Today, there are syllabary fonts available electronically, making desktop publishing of Cherokee reading materials a greater possibility than ever before.

The Cherokee syllabary has great historical, political, and emotional significance among Cherokee people. Justice (2006) speaks of the role that the syllabary played in resisting Indian removal in the early 19th century and as a cornerstone of Cherokee education after the Trail of Tears. With a majority of Cherokees literate in the syllabary and the wide distribution of the Cherokee language newspaper, the *Cherokee Phoenix*, participation in political processes and resistance “put the lie to any idea that the traditional people were either ignorant of the full measure of issues under consideration or that they were duped, hoodwinked, or deluded” (p. 78–79). Beyond providing a means for engaging in resistance, Cherokee literacy in both syllabary and English led to new modes of communication including love letters, daily news, poetry, stories, and the documentation of medicines, property, and genealogy.

Despite the long tradition of literacy and the notion that “Cherokees associate literacy with *knowledge*, and knowledge is prerequisite to the full acceptance of an individual as a mature and responsible member of the Cherokee community” (Walker, 1975, pp. 195–196), the patterns of distribution of written Cherokee have changed. Now, for example, the *Cherokee Phoenix* is an English newspaper with only one story per issue translated to Cherokee and written in syllabary. Written Cherokee appears on signage throughout the Cherokee Nation jurisdictional area—on traffic signs, store fronts, and all Cherokee Nation buildings and establishments—but is no longer being used to record tribal government proceedings or to keep accounts. Furthermore, a Romanized phonetic system for Cherokee, as well as an English translation, is often used alongside the syllabary, rendering knowledge of the syllabary redundant for reading many Cherokee texts.

As Cherokee literacy rates among adults declined along with oral fluency in the language, a significant effort was made, beginning with force in the 1980s, to teach Cherokee syllabary in community centers, at Cherokee Nation employee sites (Peake Raymond, 2008), and other contexts that targeted Stage 5 of Fishman’s GIDS—formal literacy teaching outside of a compulsory school setting. Characterized by Fishman (2006) as “do-it-yourself” programs not obligated to meet standards imposed by the dominant language group, these classes were designed primarily for adult speakers who had never learned to read and write the syllabary but wanted to be able to read the Bible and church hymnals written in Cherokee. An abundance of classroom materials designed for this purpose has been created over the years, and literacy assessments have also been developed for fluent speakers to become certified as “Master Speakers,” a designation that requires the ability to read and write syllabary.

Given this history, it is not surprising that the domain of school has, until recently, been particularly devoid of Cherokee print, and as recently as 1975 Walker notes that, “In general, the ability to read Cherokee is functional in only two major aspects of contemporary Cherokee life—participation in religious activities and the practice of Indian medicine” (p. 195). Because those functions are of interest primarily to adults, syllabary books for children, primers, read-along books, chapter books, and other types of printed texts for children so prevalent in mainstream English schools and readily available to English-speaking children of every age have not historically been a part of the Cherokee childhood experience. In fact, classroom teachers indicated to us that Cherokee children’s books were nonexistent in both their schools and their homes as they were growing up. Apart from Cherokee fables, which tend to require a proficient knowledge of Cherokee grammar and vocabulary, there exist very few traditional Cherokee songs, stories, rhymes, or word play written exclusively for children.

The shift in Cherokee-language revitalization priorities from Stage 5 (outside of compulsory schooling) to Stage 4a (in lieu of compulsory schooling) has resulted in a number of challenges

for Cherokee immersion. First, the new priority on school-based Cherokee immersion has required a massive undertaking on the part of curriculum and instructional staff to develop books and computerized DVDs designed to meet the interests of children at an appropriate linguistic level for second-language learners. This work has included, to a great extent, translating favorite English children's books into Cherokee, often resulting in texts that do not encourage the development of literacy because of issues such as stilted language, linguistic complexity beyond the skills of second-language learners, paucity of exposure to unique Cherokee forms, and lack of connection to children's oral skills.

Second, the need to produce materials rapidly for immediate use in the classroom has, to some extent, undermined efforts to frame Cherokee literacy on the lived experiences and understandings of native speakers of Cherokee. By transcending diglossia and bringing Cherokee into a domain that has been traditionally occupied by English, it is tempting to use familiar, available, mainstream models of literacy, particularly for the teaching of content area, such as science and social studies. The result, Meek and Messing (2007) suggest, of framing an Indigenous language onto a dominant language "matrix" is that any attempt to valorize the Indigenous language "is interrupted by the fact that the framing reasserts the unequal power relationships between the languages and their speakers" (p. 114).

Third, and of great importance to a consideration of the sociocultural domains of Cherokee literacy, is the ability of parents—or their lack of ability—to read in Cherokee with their children at home. Some researchers have suggested that parental literacy abilities and home literacy environments may have an influence on children's acquisition of written-language concepts (Burgess, Hecht, & Lonigan, 2002; Purcell-Gates, 1996). Others have documented differences in cultural approaches to reading with children unrelated to parental literacy (Bus, Leseman, & Keultjes, 2000). That is, the importance parents assign to reading with their children may determine the nature of their interactions with texts and mediation of children's understanding of texts. To gain insight into literacy practices in the homes of immersion students in kindergarten through second grade, we designed and administered a Home Literacy Questionnaire. The questionnaire solicited information from parents about the kinds of reading materials they had at home in English and Cherokee, as well as their daily reading and writing habits and those of their children. Seventeen of the 20 parents completed the questionnaire as part of their enrollment packet. Their responses indicate that although 100% of them read in English to their children at home, only 41% did so daily. Additionally, 35% indicated they did not read to their children at all in Cherokee, mostly due to their lack of proficiency in the language and knowledge of syllabary. Of those who indicated that they read to their children in Cherokee, none did so daily and 63% indicated that they did so only two or three times per week.

Finally, parents' general lack of proficiency and literacy in Cherokee leaves the school as the primary (and often sole) source for dissemination of the language, which maintains Cherokee's status as a second language, rather than a first. Fishman (2001) expressly warns that when school language efforts are not linked to home functions, and if parents do not activate the language intimately, "the school itself becomes one link in an established intergenerational sequence of teaching the threatened language as a second language . . . keeping it as a second language at least for another generation" (p. 14). Thus, the shift from stage 5 to stage 4, he cautions, must not be made lightly or without extensive planning and thought given to the home-school-community connection.

A comprehensive theory of Cherokee-literacy revitalization must address the implications of this domain shift from historical uses of the syllabary and Stage 5 community literacy activities to the more contemporary and academic uses that exist at Stage 4a of GIDS. As the syllabary moves into classrooms—and ideally into homes—it is being used in unique and specialized ways never before encountered. Thus, the syllabary has assumed a central role in Cherokee-language revitalization that challenges current notions of literacy and the semiotic values historically associated with Sequoyah’s writing system.

### A MODEL OF CHEROKEE LITERACY REVITALIZATION: DISCUSSION AND CONCLUSIONS

The results of the Cherokee literacy assessment combined with the responses to a home-literacy questionnaire, classroom observations, professional conversations with teachers, and a review of relevant research seem to validate a conceptual model that acknowledges the shift from stage 5 to 4a of GIDS as well as the micro- and macrosociocultural and linguistic dimensions necessary for understanding Cherokee literacy revitalization (Figure 5). The data we have collected and analyzed to this point in time have not allowed us to fully operationalize all the constructs of our framework, and therefore this model should be viewed as preliminary.

We recognize that reversing Cherokee language shift is not a linear process that occurs entirely progressively, and is furthermore fraught with potential pitfalls that this model does not represent and cannot predict. Crossing from stage 5 to 4, Fishman (2006) warns, may present the language community with “burdens and challenges that may be excessive, non-productive and even dangerous for the entire RLS enterprise” (p. 97). Potential dangers of the Cherokee shift to 4a include pressure from some administrators and parents to focus the curriculum and instruction on the Priority Academic Student Skills (PASS) mandated by the Oklahoma Department of Education, a decision that could ultimately compromise the cultural and linguistic integrity of the original immersion-school vision. Also potentially harmful is current pressure from some parents to introduce English earlier into the program than originally planned—in second grade rather than fifth grade—because of concerns that children in the immersion school will fall behind their monolingual peers on state reading assessments in English. Despite apprehension that children in Indigenous language-immersion programs will not become sufficiently proficient in English to be successful academically (Arviso & Holm, 2001; DeJong, 1998; Hinton, 2001; Slaughter, 1993), there is some suggestion that this is a narrow view of the role of immersion in language revitalization. That is, the intensity of immersion may be the only way to combat language decline and as Wilson and Kamanā (2001) of the Hawaiian revitalization movement state, the most important goal for RLS is the strengthening of the linguistic and cultural community.

Perhaps the greatest challenge to the success of Cherokee Nation’s stage 4a effort is the tenuous family–school–community link that Fishman urges must be in place before a transition from the weak side to the strong side of GIDS can be successfully sustained. Although the shift of the syllabary into a school-based domain for young second-language learners suggests a new generation of Cherokee speakers, the future readers and writers of Cherokee will require greater support from the family and broader community venues for using Cherokee to sustain their motivation to attain higher levels of biliteracy. With these potential dangers taken into account, we propose that this model serves to contextualize Cherokee-language literacy teaching and

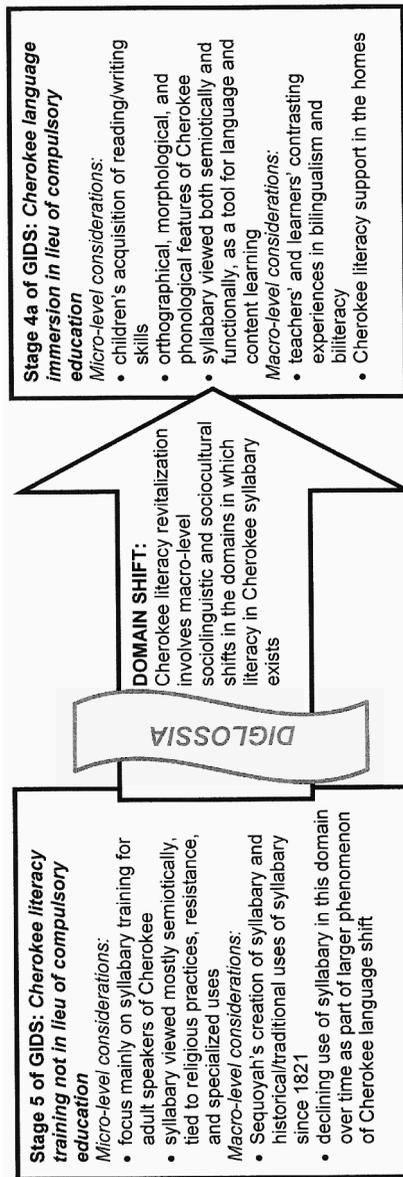


FIGURE 5 A model of the Cherokee Literacy Revitalization context.

learning and contributes to a comprehensive theory of language revitalization, as elusive as that theory may be given the complex nature of reversing language shift. As Fishman (2001) has noted, although local descriptions do not necessarily result in general theories, they are “essential for arriving at such” (p. 462).

Although the Cherokee syllabary and language situation are unique, the monumental task undertaken by Cherokee Nation to reverse language shift is not. Through an examination of Cherokee Nation’s venture into Cherokee-literacy revitalization, this study offers insight into the challenges and opportunities facing those who attempt to transcend diglossia and target stage 4a of GIDS by teaching endangered languages in schools. Fishman’s caution of “premature crossing” into stage 4 (2006, p. 97) is advice well taken in contemporary times when immersion schooling of this large scale may be fiscally unfeasible. Indeed, despite Cherokee Nation’s allocation of “a record amount of spending for cultural programs, including language development initiatives and language immersion classes” (Cherokee Nation, 2006b), it is an amount that could be cut if political tides change and pressure mounts to reallocate that funding to other pressing issues, such as health and housing. Furthermore, the current era of educational accountability has challenged planners of innovative, Indigenous language-immersion programs to align their educational outcomes with those mandated by the No Child Left Behind Act, despite the noted negative impacts that this legislation has for Native American children (see, for example, McCarty, 2008; Romero-Little, McCarty, Warhol, & Zepeda, 2007). This is an issue that Cherokee Nation currently faces with its immersion school; the focus of much discussion and debate is not on the development of children’s Cherokee skills, but the children’s *lack* of literacy in English. Nicholas (2005) noted similar tension in a Hopi context where “even in this Hopi community school, the curriculum under which children are educated focuses on English and the standards of most mainstream public schools” (p. 36). In this case, she views schooling and literacy as being “understood as explicitly colonizing practices” (p. 35).

Yet, the opportunities stage 4a presents for those who seek to revitalize—or to initiate—heritage-language literacy are many, and, as the literature suggests, communities are incorporating literacy practices into their language programs in distinct and creative ways. Like the Gapuners of Papua New Guinea in Kulick and Stroud’s (1993) study, Indigenous communities are “seizing hold of those dimensions of literacy for which they consider they have the most use” (p. 55). The evidence presented here suggests this to be the case in Cherokee Nation as we witness a new generation of Cherokee speakers with literacy skills that differ greatly from that of many native speakers.’ Curriculum developers and teachers in language-revitalization programs are therefore in a unique position to establish literacy goals most appropriate for their sociocultural and sociolinguistic contexts. We hope that throughout this analysis we have shown a way for them to conceptualize literacy toward fruitful and meaningful language—and literacy—revitalization efforts.

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## REFERENCES

- Arviso, M., & Holm, W. (2001). Tséhootsoóídi ólta'gi Diné bizaad bíhoo'aah: A Navajo immersion program at Fort Defiance, Arizona. In L. Hinton and K. Hale (Eds.), *The green book of language revitalization in practice* (pp. 203–215). San Diego, CA: Academic Press.
- Bender, M. (2002a). *Signs of Cherokee culture: Sequoyah's syllabary in Eastern Cherokee life*. Chapel Hill, NC: University of North Carolina Press.
- Bender, M. (2002b). From “easy phonetics” to the syllabary: An orthographic division of labor in Cherokee language education. *Anthropology & Education Quarterly*, 33(1), 90–111.
- Bender, M. (2008). Indexicality, voice, and context in the distribution of Cherokee scripts. *International Journal of the Sociology of Language*, 192, 91–103.
- Burgess, S., Hecht, S., & Lonigan, C. (2002). Relations of the home literacy environment (HLE) to the development of reading-related abilities: A one-year longitudinal study. *Reading Research Quarterly*, 37, 408–426.
- Bus, A. G., Leseman, P. P. M., & Keultjes, P. (2000). Joint book reading across cultures: A comparison of Surinamese-Dutch, Turkish-Dutch, and Dutch parent-child dyads. *Journal of Literacy Research*, 32, 53–76.
- Cherokee Nation. (2003). *Ga-du-gi: A vision for working together to preserve the Cherokee language: Report of a needs assessment survey and a 10-year language revitalization plan*. Final report submitted in fulfillment of FY 2001 DHS ANA Grant #90-NL-0189. Tahlequah, OK: Cherokee Nation.
- Cherokee Nation. (2005). *Cherokee kindergarten immersion curriculum*. Tahlequah, OK: Cherokee Nation.
- Cherokee Nation. (2006a). *Cherokee first grade immersion curriculum*. Tahlequah, OK: Cherokee Nation.
- Cherokee Nation. (2006b, August 29). *Chief proposes record budget for Cherokee Nation*. [Press Release]. Retrieved from <http://www.cherokee.org/NewsRoom/FullStory/2078/Page/Default.aspx>
- Cherokee Nation. (2007). *Cherokee second grade immersion curriculum*. Tahlequah, OK: Cherokee Nation.
- Cherokee Nation. (2008). *Cherokee language immersion literacy assessment*. Tahlequah, OK: Cherokee Nation.
- DeJong, D. (1998). Is immersion the key to language renewal? *Journal of American Indian Education*, 37, 1–11.
- Dorian, N. C. (1998). Western language ideologies and small-language prospects. In L. A. Grenoble & L. J. Whaley (Eds.), *Endangered languages: Current issues and future prospects* (pp. 3–21). Cambridge, England: Cambridge University Press.
- Fishman, J. A. (1991). *Reversing language shift: Theoretical and empirical foundations of assistance to threatened languages*. Philadelphia: Multilingual Matters Ltd.
- Fishman, J. A. (Ed.). (2001). *Can threatened languages be saved?* Clevedon, England: Multilingual Matters Ltd.
- Fishman, J. A. (2006). What is reversing language shift (RLS) and how can it succeed? In N. H. Hornberger & M. Putz (Eds.), *Language loyalty, language planning and language revitalization: Recent writings and reflections from Joshua A. Fishman* (pp. 79–112). Tonawanda, NY: Multilingual Matters.
- Francis, N., & Reyhner, J. (2002). *Language and literacy teaching for Indigenous education: A bilingual approach*. Clevedon, England: Multilingual Matters Ltd.
- Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation design. *Educational Evaluation and Policy Analysis*, 11, 255–274.
- Hinton, L. (2001). Teaching methods. In L. Hinton & K. Hale (Eds.), *The green book of language revitalization in practice* (pp. 179–89). San Diego, CA: Academic Press.
- Hirata-Edds, T. (2006). *Influence of second language immersion in Cherokee on children's development of past tense in their first language, English*. Unpublished doctoral dissertation, University of Kansas, Lawrence.
- Hornberger, N. H. (Ed.). (1997). *Indigenous literacies in the Americas: Language planning from the bottom up*. Berlin, Germany: Mouton de Gruyter & Co.
- Hornberger, N. H. (2003). Continua of biliteracy. In N. H. Hornberger (Ed.), *Continua of biliteracy: An ecological framework for educational policy, research, and practice in multilingual settings* (pp. 3–34). Tonawanda, NY: Multilingual Matters.
- Justice, D. H. (2006). *Our fire survives the storm: A Cherokee literary history*. Minneapolis, MN: University of Minnesota Press.
- Krauss, M. (1996). Status of Native American language endangerment. In G. Cantoni (Ed.), *Stabilizing Indigenous languages* (pp. 16–21). Flagstaff, AZ: Center for Excellence in Education.
- Krauss, M. (1998). The condition of Native North American languages: The need for realistic assessment and action. *International Journal of Sociology of Language*, 132, 9–21.

- Kulick, D., & Stroud, C. (1993). Conceptions and uses of literacy in a Papua New Guinean village. In B. Street (Ed.), *Cross-cultural approaches to literacy* (pp. 30–61). Cambridge, England: Cambridge University Press.
- Leap, W. L. (1991). Pathways and barriers to Indian language literacy-building on the Northern Ute reservation. *Anthropology and Education Quarterly*, 22(1), 21–41.
- Linn, M. S., Berardo, M., & Yamamoto, A. (1998). Creating language teams in Oklahoma Native American communities. *International Journal of the Sociology of Language*, 132, 61–78.
- McCarty, T. (2008). American Indian, Alaska Native, and Native Hawaiian education in the era of standardization and NCLB—An introduction. *Journal of American Indian Education*, 47, 1–9.
- McLaughlin, D. (1989). The sociolinguistics of Navajo literacy. *Anthropology and Education Quarterly*, 20(4), 275–290.
- McLaughlin, D. (1992). *When literacy empowers: Navajo language in print*. Albuquerque, NM: University of New Mexico Press.
- Meek, B. A., & Messing, J. (2007). Framing Indigenous languages as secondary to matrix languages. *Anthropology and Education Quarterly*, 38(2), 99–118.
- Mithun, M. (1989). The acquisition of polysynthesis. *Journal of Child Language*, 16, 285–312.
- Mithun, M. (1999). *The languages of Native North America*. Cambridge, England: Cambridge University Press.
- Montgomery-Anderson, B. (2008). *A reference grammar of Oklahoma Cherokee linguistics*. Unpublished doctoral dissertation, University of Kansas, Lawrence.
- Nicholas, S. (2005). Negotiating for the Hopi way of life through literacy and schooling. In T. L. McCarty (Ed.), *Language, literacy, and power in schooling* (pp. 29–46). Mahwah, NJ: Lawrence Erlbaum Associates.
- Peake Raymond, M. (2008). *The Cherokee Nation and its language: Tsalagi ayeli ale uniwonishidi*. Tahlequah, OK: Cherokee Nation.
- Peter, L. (2003). *A naturalistic study of the Cherokee language immersion preschool project*. Unpublished doctoral dissertation, University of Kansas, Lawrence.
- Peter, L. (2007). Our beloved Cherokee: A naturalistic study of Cherokee preschool language immersion. *Anthropology and Education Quarterly*, 38(4), 323–342.
- Peter, L., & Hirata-Edds, T. (2006). Using assessment to inform instruction in Cherokee language revitalization. *International Journal of Bilingual Education and Bilingualism*, 9(5), 643–658.
- Peter, L., Hirata-Edds, T., & Montgomery-Anderson, B. (2008). Verb development by children in the Cherokee language immersion program, with implications for teaching. *International Journal of Applied Linguistics*, 18(2), 166–187.
- Purcell-Gates, V. (1996). Stories, coupons, and the “TV Guide”: Relationships between home literacy experiences and emergent literacy knowledge. *Reading Research Quarterly*, 31, 406–428.
- Rockwell, E. (2005). Indigenous accounts of dealing with writing. In T. L. McCarty (Ed.), *Language, literacy, and power in schooling* (pp. 5–27). Mahwah, NJ: Lawrence Erlbaum Associates.
- Rogers, H. (2005). *Writing systems: A linguistic approach*. Malden, MA: Blackwell Publishing.
- Romero-Little, M. E., McCarty, T. L., Warhol, L., & Zepeda, O. (2007). Language policies in practice: Preliminary findings from a large-scale study of Native American language shift. *TESOL Quarterly*, 41(3), 607–618.
- Slaughter, H. (1993). Learning to read English outside the school: Patterns of first language literacy acquisition of Hawaiian language immersion students. *Educational Perspectives: Journal of the College of Education University of Hawai‘i Manoa*, 28, 9–17.
- Street, B. V. (1997). Local literacies and vernacular literacies: Implications for national literacy policy. In N. Hornberger (Ed.), *Indigenous literacies in the Americas: Language planning from the bottom up* (pp. 369–385). New York: Mouton de Gruyter.
- UNESCO. (2003). *Language vitality and endangerment*. UNESCO Intangible Cultural Heritage Unit’s Ad Hoc Expert Group on Endangered Languages: Programme Safeguarding of Endangered Languages. Paris: UNESCO.
- Walker, W. (1975). Cherokee. In J. M. Crawford (Ed.), *Studies in southeastern Indian languages* (pp. 189–236). Athens, GA: The University of Georgia Press.
- Watahomigie, L. J., & McCarty, T. L. (1997). Literacy for what? Hualapai literacy and language maintenance. In N. H. Hornberger (Ed.), *Indigenous literacies in the Americas: Language planning from the bottom up* (pp. 95–113). Berlin, Germany: Mouton de Gruyter.
- Wilson, W., & Kamanā, K. (2001). “Mai loko mai o ka ‘i‘ini: Proceeding from a Dream”: The ‘Aha Pūnana Leo connection in Hawaiian language revitalization. In L. Hinton & K. Hale (Eds.), *The green book of language revitalization in practice* (pp. 147–176). San Diego, CA: Academic Press.
- Yonemura, M. (1982). Teacher conversations: A potential source of their own professional growth. *Curriculum Inquiry*, 12(3), 239–256.