Our Words, Our Sounds, Our Data: Protecting Language through Orthography

The Impact of Spelling Accuracy on Aboriginal Language Preservation and Revitalisation

Introduction

Orthography is not simply a writing tool in Aboriginal language preservation and revitalisation; it is a carrier of sound, identity, and cultural authority. Across Australia, spelling choices shape how languages are spoken, learned, and transmitted. Traditionally, Aboriginal languages were oral, passed through kin, Country, story, and song. Today, efforts rely heavily on written resources, grammar documents, wordlists, and digital tools. This places enormous responsibility on orthography to reflect authentic sound systems and avoid unintentionally imposing English phonology. For this reason, orthography and spelling are central to sound sovereignty, linguistic authority and the cultural continuity of Aboriginal languages.

At the same time, orthography alone cannot revitalise a language. A standard spelling system provides the essential foundation upon which accurate pronunciation and linguistic analysis can be built, but it requires community-designed teaching resources, learner guides and language-centre support to become active knowledge rather than static documentation. This paper focuses primarily on the critical role of orthography and spelling in protecting Aboriginal language sound systems, while also acknowledging that community-driven pedagogical resources are necessary to bring these orthographies to life in everyday learning.

Why Standard Orthography Matters

In preserving and revitalising First Nations languages, spelling acts as a spoken model. Many learners today do not have everyday access to fluent Elders, meaning writing becomes the teacher. GALCAC (Goldfields Aboriginal Language Centre Aboriginal Corporation) explains that each grapheme correlates to one sound and it never changes.

In the absence of a standard orthography, texts will mostly be incoherent and inconsistent. Words may be spelled in variant ways, the same phonetic values may not be used systematically, and it will be difficult to analyse the sound-system or to produce new lexical items. An orthography that has been standardised provides a stable mapping between symbols and sounds, such that existing lexical items can be compared and described, and new words can be created that agree with the sound system, word-building patterns, and spelling rules of the language. Consistent orthography becomes a tool to generate new vocabulary (neologisms) that match phonological constraints and community usage. The National Indigenous Languages Report (2019) points out that language renewal "offers opportunities … to document the language, discover materials about the language and create new teaching materials" (p. 66). The First Peoples' Cultural Council (2020) guide describes an orthography as "a standardised system for writing a specific language, including both the symbols used to write the language, and the conventions for which symbol refers to which sound." In areas where multiple dialects exist or where revitalisation is drawing learners from different speaker groups, a standard orthography allows for a shared written form, making teaching resources, signage and new word lists available to more learners.

In practice, communities with consistent orthography have produced dictionaries, language apps, word-creation programs, and corpora that facilitate teaching and technological development (Schillo & Turin, 2024). Without standardisation, the investment in these resources is hampered by variant spellings, unpredictability and learner confusion. In short, a standard orthography not only preserves existing vocabulary, it enables the growth of the language through new lexical creation and deepens the analytic basis for teaching, research and documentation.

Just as English demands standard spelling enforced in schooling, publishing, and speech therapy, Aboriginal languages deserve the same linguistic dignity. Amery (2016) argues that reclaimed languages are legitimate languages, not lesser versions of their historical forms, and must be treated with integrity and respect in both Community and education settings. To accept careless or variable spelling in Aboriginal languages while maintaining strict English spelling standards replicates a colonial hierarchy where English is privileged and Indigenous languages are treated as informal or "flexible." Correct orthography, by contrast, asserts sound sovereignty and that Aboriginal languages are fully formed, rule-governed linguistic systems worthy of precision.

Sound sovereignty in the context of this document means Aboriginal authority over a language's sound system, its phonology, pronunciation norms, and orthographic representation, so that speech remains accountable to Elders, Country, and community standards (and is not reshaped by English literacy or AI models).

Sound sovereignty is tied to linguistic sovereignty. In language, it is a term that speaks to the right and power of Aboriginal people to maintain and revitalise their own languages, songs, stories and environments: everything that makes them who they are and connects them, Country and ancestors. It's ongoing sovereignty, a sovereignty which was stripped by colonisation but is now being reasserted through language teaching and revival, song pedagogy and community-based processes.

Orthography and Sound Structure

Aboriginal languages hold rich phonological systems, including:

- Multiple rhotic (r) sounds
- Retroflex consonants
- Syllable-timed rhythm (not stress-timed like English)
- Distinctive vowel qualities
- Glides and long/short vowel contrasts
- Allophonic variation conditioned by environment

GALCAC's orthography guide emphasises this by teaching learners how to interpret retroflex sounds and other phonemes unfamiliar to English speakers. A transparent writing system prevents English sounds from replacing Aboriginal ones.

Where orthography is loose, English-speaking learners unconsciously impose:

- English stress patterns
- English vowel reduction (schwa)
- Affrication (*tj/dj* → *ch/j*)
- Voicing contrasts foreign to many Aboriginal phonologies (*p/b*, *k/g*)

Over time, English grammar and sound patterns can replace the original structure, resulting in speech that uses Aboriginal vocabulary but functions like English.

Impacts Across Language User Groups

Elders and First-Language Speakers

Incorrect spelling breaks communication continuity. Elders may not recognise mis-spelled words, as seen when *pika* ("sick") was changed to bega, when naming the local Aboriginal health service, obscuring the original sound and meaning. Elders similarly report confusion when hearing English-accented versions of local languages or when spellings misrepresent traditional sounds.

Second-Language Aboriginal Speakers

Second-language speakers rely heavily on written forms; spelling becomes pronunciation. Without clear orthography, learners risk internalising English-accented Aboriginal speech, which may later be seen as "normal" despite being distorted.

Non-Aboriginal Learners

Non-Indigenous learners often default to English phonics. If spelling is inaccurate or unstandardised, mispronunciation spreads into schools, signage, tourism, government speech, and AI datasets.

The result is not diversity, it is drift away from Country and Elders' voice.

Case Study: The Goldfields Aboriginal Language Centre

GALCAC provides a model of community-controlled linguistic authority in WA. Their work includes:

- Standard orthography development
- Pronunciation guides and teacher training
- Dictionaries and grammar production
- Language classes and recordings
- Repatriation of archival material

Their orthography guide states:

"Languages of the Goldfields Region use one symbol for one sound"
(GALCAC, 2018)

This direct mapping protects pronunciation integrity and supports the community's right to lead spelling and language development. It also prepares the region for digitisation and AI speech modelling, ensuring that if Goldfields languages enter computational environments, they do so with correct sound structure.

Linguistic Examples: Pronunciation Loss Through Misspelling

As mentioned earlier an example in Cundeelee Wanka is pika (sick) being spelled as bega. In Wanarruwa language (Hunter valley NSW) miri is one of the words for yes and mirri is a female dingo. So incorrect spelling would create a very confusing sentence. These misspellings have impact:

- Elders do not recognise the colonial form
- English sound patterns replace Aboriginal phonology

A recent children's book has been written and published by a non-linguist and has a number of incorrect spellings and grammatical issues, such as vowel reduction, phonemic collapse and incorrect word order.

There are vowel reductions which is the reduction of long vowels to short vowels, for example yaaltji to yaltji. Yaaltji is an interrogative (question word) meaning where.

There are multiple instances of rr being reduced to r for example, mukurringanyi to mukuringanyi. Mukurringanyi is a verb meaning to like, to want, to choose with suffix of nganyi making it present tense.

This phenomenon is known as anglicisation, often realised as vowel reduction or vowel neutralisation and phonemic collapse caused by English L1 (first language) transfer into Aboriginal languages, removing important phonemic distinctions. Reid (2010) documents similar patterns across New South Wales reawakening programs, noting that English-speaking learners frequently simplify rhotic contrasts (*r/rr*), affricate palatal stops (*tj/dj* → *ch/j*), and neutralise unstressed vowels to schwa, producing English-accented variants of

traditional phonologies. These findings reinforce that where orthography is loose or inconsistent, pronunciation drifts toward English norms and erodes linguistic authenticity.

These cases demonstrate a universal truth: When spelling does not match phonology, speech shifts.

Kaurna Evidence: Spelling Reform to Protect Sound

Amery's work on Kaurna provides compelling evidence that orthographic precision is foundational in language revival, as inaccurate spelling risks importing English phonology and eroding distinctive Aboriginal sound systems (Amery, 2016).

Amery documents how Kaurna standardised spelling to prevent anglicisation:

- Digraphs (*rn, ly, ny*) represent single Indigenous phonemes
- Retroflexes explicitly marked
- English consonant distinctions not imported

This is a blueprint Communities are already following, including GALCAC's work. GALCAC offers certification of the spelling of Language words. Orthography here is cultural repair and phonological restoration.

Digital Futures: AI and Sovereignty

AI language models and digital dictionaries depend on accurate training data. Peter-Lucas Jones (Te Hiku Media, Aotearoa) warns: "If our language doesn't have a digital future, it will struggle to survive."

But digital future must not mean English-accented AI voices. Māori communities lead globally by:

- Protecting pronunciation integrity
- Controlling speech data
- Avoiding outsourcing language to external tech platforms
- Designing AI tools that respect Indigenous phonology

Language centres like GALCAC in WA and Muurrbay in NSW are building similar pipelines, digitising audio, building dictionaries, and documenting phonology so future AI tools speak with the voice of Country, not English substitutions.

Incorrect spelling today = incorrect AI tomorrow.

A Note on Community Learning Beyond Orthography

A standard orthography, while critical for precise spelling and pronunciation, and for preservation purposes, is only the initial step of the revitalisation process. Dictionaries, grammars, and technical descriptions are generally prepared within a linguistic framework. This is to retain the integrity of the information, but it can be challenging to engage community language learners with technical linguistic descriptions when they have not learned about language through linguistic frameworks in their English literacy education and orthographic habits. To ensure a standard orthography is usable in practice, communities need to have language centres, teaching materials, audio, signage, storybooks and learner guides to interpret the linguistic information into a practical learning pathway. These types of Community based tools are critical to making an orthography functional in daily use and allow a language to be spoken, taught, and reclaimed.

Conclusion

Language revitalisation and preservation need more than good intentions. It needs more than memory. It needs more than bits and pieces of historical spellings. It needs to be able to make a principled return to the sound of Country, supported by a standard orthography that honours the phonological integrity of the language. As the examples discussed in this paper have shown, spelling is never cosmetic: in contexts of revitalisation and preservation, orthography is often the primary source of input for learners, with a major influence on how they hear, produce, and transmit sounds. Misspellings, inaccurate spellings, and English-influenced spellings can subtly but powerfully change pronunciation, eliminate contrasts, and interfere with the transmission of meaning across generations. A community-approved, phonologically accurate orthography is therefore an essential basis for linguistic sovereignty, a way of making language answerable to Elders, stories, and the Country from which it emerges.

Orthography, however, is only a first step. A standard writing system preserves the building

blocks of the language, but cannot on its own restore the practice of everyday speaking, learning, and cultural practice. The standard spelling and the teaching resources of a language are two sides of the same coin; an orthography is the backbone and provides a consistent, shared system upon which to base pronunciation, and community-centred language learning resources is the heartbeat that will ensure these words and spellings come to life. Together they not only allow accurate pronunciation and sound sovereignty but also the living presence of language on Country for generations to come.

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