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## **Title**

### **When Spellcheck Erases the Community: Co-Designing a Variant-Sensitive Writing Assistant for Adult Learners of a Minoritized Celtic Language**

Digital tools for minoritized languages often reproduce the logic of standardization. Spellcheckers and grammar assistants typically encode a single “correct” orthography, thereby marginalizing dialectal forms and community variation. In revitalization contexts, where variation reflects living sociolinguistic ecologies rather than deviation, such tools may unintentionally reinforce internal hierarchies and undermine speaker agency (Heller, 2007; Costa, 2015; Hornsby, 2015).

This paper presents a participatory design study conducted with adult learners and teachers of a minoritized Celtic language in a community education setting. The study addressed one precise question: How can a writing assistant support literacy development without suppressing dialectal diversity?

Over six months, 22 adult learners and 8 teachers co-constructed a prototype variant-sensitive writing assistant. Instead of autocorrecting “non-standard” forms, the system flags lexical or orthographic variants and provides sociolinguistic metadata (regional distribution, historical usage, institutional standard status). The tool was developed using a rule-based NLP layer combined with community-validated lexical databases. Evaluation involved classroom pilot testing, observation of writing tasks, and structured collective feedback sessions.

Findings suggest that learners preferred transparent explanation over correction, reporting increased metalinguistic awareness and confidence. Teachers noted a pedagogical shift from norm enforcement to sociolinguistic reflection. However, tensions emerged between institutional standardization requirements and community-preferred variants, raising ethical questions about authority in digital language tools.

The paper argues that NLP tools for minoritized languages must move from normalization to negotiation. Co-designed, variant-sensitive tools can transform writing technologies into spaces of plural recognition, provided speakers remain central epistemic agents in both design and evaluation.

## **References**

Costa, J. (2015). *New speakers, new language: On being a legitimate speaker of a minority language in Provence*. *International Journal of the Sociology of Language*, 231, 127–145.

Heller, M. (2007). *Bilingualism as ideology and practice*. In M. Heller (Ed.), *Bilingualism: A social approach*. Palgrave.

Hornsby, M. (2015). *Revitalizing minority languages: New speakers of Breton, Yiddish and Lemko*. Palgrave.

Jones, E. H. G., & Uribe-Jongbloed, E. (2013). *Social media and minority languages*. Multilingual Matters.

Zuckermann, G. (2020). *Revivalistics: From the genesis of Israeli to language reclamation in Australia and beyond*. Oxford University Press.