

# Morphological Analysis and Generation in Computer-Assisted Teaching of Indigenous Languages

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# Goals

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- Computational linguistics and (computer-assisted) language instruction

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- Towards collaboration among fields in the development of teaching materials for indigenous languages

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    - Morphology

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  - *llank'a* 'work', *llank'arpariy* 'work completely' (Quechua)



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  - *mepitetatsihetixakítetuirietsitiaxiamekaitikaku*  
'however, they already wanted to start ordering us to bring them the dishes' (Huichol, Iturrioz & Gómez López)

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  - squpuc ‘beard’

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    - Through knowledge of the morphology

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    - *kinawilo* →  
[root='il',  
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- Feature-structure representations

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- Feature-structure representations
  - Grammatical knowledge takes the form of structured representations, like those we'd use for syntax

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- Extensible
  - Can easily accommodate new lexical items and new rules

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- (to program)

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    - *Ke'warik.*  
*They sleep.*

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- Teaching morphology means making word structure explicit.
- Intelligent computer-assisted teaching of morphology incorporates rule-based analysis and generation of words, bringing robustness and extensibility.
- Computational techniques applied to K'iche' could be integrated into teaching materials for K'iche' or other languages.

Thank you!  
¡Maltyox!  
¡Añaychaykichis!