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Neologisms in New Zealand Sign Language: A case study of COVID-19 pandemic-related signs

1 NZSL background and lexicography

New Zealand Sign Language (NZSL)[1] is estimated to be used by 3,000–5,000 Deaf people in New Zealand, with a larger group of just over 20,000 New Zealanders able to "have a conversation about a lot of everyday things" in the language.[2] Prior to the development of interpreting services in the 1980s and acceptance of NZSL in education from the 1990s, NZSL was used mainly for communication in private, social domains, which restricted the size and fields of lexicon.

Linguistic documentation of NZSL began in the mid-1980s (Collins-Ahlgren 1989, Levitt 1986). Early lexicographic efforts culminated in the print *Dictionary of New Zealand Sign Language* (Kennedy et al. 1997) followed by a *Concise Dictionary of New Zealand Sign Language* (Kennedy et al. 2002) comprising the 2,000 most frequent signs. These print dictionaries were amongst the first corpus-based signed language dictionaries that used data from signed language as the source of lexicon rather than being a translational glossary from the spoken language. Lexical documentation was based on the systematic analysis of video recorded, mainly spontaneous discourse around elicited / guided topics. An extensive community validation process was undertaken before signs (including variants) were entered in the dictionary.

The existence of these dictionaries contributed to legal recognition of New Zealand Sign Language in 2006 (McKee 2006). Official language status and disability access measures have subsequently made NZSL more visible in public domains. Deaf NZSL users increasingly participate in wider social, political, occupational and educational domains, leading to rapid lexical development of NZSL in these fields. This parallels lexical expansion seen in the national indigenous language, Te Reo

1 It is conventional in linguistics literature to use the phrase 'signed languages' when referring to languages in this modality in a general or collective sense (cf. 'spoken languages' or 'written languages'). However, the proper names of specific national languages in English take the form '(New Zealand / American / British . . .) Sign Language'.

2 http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-culture-identity/languages.aspx (last access: 10 June 2022).

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Māori, as an outcome of recognition and revitalisation (Harlow 1993). The Deaf community's participation in new domains is typically mediated by interpreters, who are challenged by lexical inequivalence between English and NZSL.

Representing a visual-gestural language with static images (in the absence of a written form) is a key challenge in signed language lexicography (McKee/McKee 2013). Improvements in digital media and data storage enabled the creation of the *Online Dictionary of New Zealand Sign Language* (ODNZSL) with video content. Taking the dictionary online included revising and revalidating existing data and adding further entries and video material (with corpus-derived but edited example sentences). Further entries have been added in batches, with the most recent update in 2017. By signed language dictionary standards, the 6,000 or so entries in the ODNZSL make it a reasonably large and comprehensive dictionary; signed language lexicons are relatively small due to limited lexicalisation, the capacity of productive forms to express novel context-dependent meanings, and the fact that signed languages were historically used in limited domains (Johnston 2012). The dictionary is a general-purpose dictionary primarily aimed at L2 learners rather than at the Deaf community, and for this reason the initial focus was on documenting high frequency signs. A user study found that use of dictionary content in teaching materials is a primary function for Deaf NZSL users and that it may also have an authoritative / standardising role, but is rarely used by Deaf NZSL users to look up the meaning or form of unknown signs (Vale 2015). Corpus work in NZSL has been undertaken in projects from the 1990s, but annotation of signed language corpora is complex and labour intensive, and the dictionary does not have access to a highly contemporary corpus from which to source current neologisms.

To leverage the Deaf community's increasing online presence, the web-based platform NZSL Share was launched in March 2020 to crowdsource new and previously undocumented signs, and to encourage community validation of these signs. The platform allows users to upload sign videos, comment on videos and agree or disagree with (often new) signs being proposed. It is managed by the research team that maintains the ODNZSL, which includes the authors. NZSL Share is being used by individuals as well as Deaf community groups to record and share signs of a specialist nature (e.g., school curriculum signs). NZSL Share now has close to 50 actively contributing members. Its launch coincided with the 2020 COVID-19 outbreak in New Zealand and so some of the first signs contributed were COVID-19-related, which are the focus of this paper.

2 COVID-19 in New Zealand

The first COVID-19 case in New Zealand was reported on 28th February 2020 and by the end of March, the entire country was required to comply with a full lockdown

(known locally as Alert Level 4) with the aim of eliminating COVID-19 from the community. During this time, the government and public health officials broadcast daily updates through television, radio and print media. It was vital that these communications reached all communities rapidly and so NZSL translation of print information was commissioned through agencies associated with the Deaf community, and NZSL interpreters were deployed at official televised briefings (also posted online). Interpreters and translators were thus at the front line of communicating new information to the NZSL community, always working under time pressure, with few reference sources and, along with the rest of the population, encountering new information and jargon as the pandemic unfolded daily. As such, interpreters and translators become de facto language innovators – generating translations and establishing terms ahead of Deaf community usage. Translation-driven lexical innovation is common when a minority language is used to translate information in public domains, as with Irish for example (Ní Ghearáin 2011). The Deaf NZSL community could not contribute greatly to creation of terminology at the outset of the COVID-19 pandemic because they were also grappling with the new information and concepts conveyed to them via translation. Furthermore the whole population was isolating at home which restricted discourse in NZSL at a community level about COVID-19, beyond online video interaction. While novel lexicon is the focus of this paper, terminology was just one of many significant challenges in mediating information to the NZSL community during the pandemic.

3 Method

We aimed to investigate translators' and interpreters' strategies for dealing with the demands of new terminology and lexical inequivalence, and their observations about the conventionalisation and dissemination of COVID-19-related signs that they used. We also wanted to explore how and when such neologisms could be entered in the ODNZSL. To gather data, we catalogued signs related to COVID-19 that were contributed to NZSL Share, and conducted two focus group interviews with: (1) interpreters who had interpreted briefings on TV (hearing L2 NZSL users, professionally trained), and (2) translators who had produced NZSL versions of public health information bulletins (Deaf L1 NZSL users, bilinguals with experience but no formal training).

Focus group interviews sought to elicit vocabulary that prompted innovation in translation, the strategies that participants used to convey new terms and concepts on the spot, and observations around the development and dissemination of coronavirus-related signs among interpreters/translators and into the wider community.

4 Findings

4.1 Novel terminology in COVID-19 related information

From the signs contributed to NZSL Share and from interview data, we identified types of novel terms and phrases in English that created challenges for translators and interpreters, and which therefore could trigger neologisms in NZSL. These included not only COVID-19-related terms but also adjacent vocabulary relating to economic and social aspects of the pandemic response. We loosely categorise this vocabulary below in terms of reasons for lexical challenges in NZSL (see Table 1).

Table 1: Categories of challenging terms and phrases in translation.

A. Medical / testing related terms – English (technical)
Antibody, community transmission, coronavirus, covid-19, covid-positive, covid-negative, dose, epidemic, epidemiological link, genome testing, herd immunity, nasopharyngeal swab, negative pressure room, pandemic, PPE, screening, strain, vaccine, vaccine rollout, virus
B. Other new / extended / reframed concepts – (NZ) English
alert levels 1–4, bubble, case, casual (+) contact, close contact, eliminate, eradicate, essential services, lockdown, mask, MIQ/ managed isolation, places of interest, quarantine, self-isolation, social distancing, team of five million, trans-Tasman bubble
C. Lexical gaps in NZSL / difficult to translate concepts
border, closing the border, hygiene, fiscal, mortgage holiday, notice (official Government notice), Reserve Bank, rent freeze, road block, support package, symptoms

Firstly, many terms that frequently occured in the government information and media briefings were **technical medical terms** already in use in English (with the exception of COVID-19). Some of the terms in Category A might be reasonably common (e.g., *epidemic*, *vaccine*, *immunity*) but others would previously have had limited use beyond the medical /scientific community (e.g., *genome sequencing*, *negative pressure room*).

Category B consists of terms that were either neologisms in NZ English or that were used in an **extended or specific sense in relation to COVID-19** (such as *lockdown*, *alert levels*, *bubble*, *essential workers*).

Finally, Category C contains terms in the source language that were not new or not directly related to COVID-19, but were nevertheless challenging because no equivalent signs exist in NZSL (such as *symptoms*, *border*). Some of these **lexical gaps** arose in relation to jargon around economic and social policy responses (e.g., *Reserve Bank*, *employment support package*, *mortgage freeze*).

4.2 Strategies for lexical innovation and types of resulting NZSL coinages

Known strategies for lexical innovation include semantic extension; coinage of new words through language-internal mechanisms such as derivation or compounding; and drawing on language-external resources, as calques or direct loans. The extent to which specific strategies are used and are deemed acceptable may vary according to the preferences of the language community (Jernudd 2013).

Proposed COVID-19 related signs contributed to NZSL Share as well as translational equivalents discussed by interpreters and translators in our focus groups include examples of both language-internal and language-external lexical innovation strategies (see Table 2). These examples reflect processes of sign creation found in the NZSL lexicon generally, as evident from signs entered in the ODNZSL and from contributions to NZSL Share.

Table 2: Types of lexical innovation in NZSL coinages and translational equivalents.

Lexical innovation strategy	NZSL equivalent
NZSL Linguistic resources	
Paraphrasing (circumlocution)	– MIQ (managed isolation and quarantine > STAY^HOTEL[3] – pandemic > ILL^SPREAD^WORLD – eliminate > COVID^STOP
Hypernyms expanded to a list	– symptoms > FEVER, SORE-THROAT, COUGH – PPE > MASK, GLOVES, APRON – Hygiene practices > WASH-HANDS, COUGH-INTO-ELBOW
Grammatical restructuring, e.g., nominal referents > verb phrases	– Trans-Tasman bubble > AUSTRALIA NZ PLANES-FLY-reciprocal – transmission > PERSON^PASS-ON-multiple
Productive morphology (depicting/ visually motivated)	SOCIAL-DISTANCING, QUARANTINE, ALERT-LEVELS
Semantic extension	– SPREAD > 'EPIDEMIC' – GROUP > 'CLUSTER'
External linguistic resources	
Calques (from English)	ESSENTIAL^OCCUPATIONS, LOCKDOWN, COVID^POSITIVE, CLOSE^CONTACT
Loan sign (from other sign languages)	CORONAVIRUS

3 In this paper we follow the convention of representing lexical signs with capitalised English glosses.

We note that a large proportion of 'signs' entered in NZSL Share are actually phrasal (multi-sign) translations of a concept, rather than lexicalised coinages. A further common strategy to express novel meaning in signed languages is the use of productive morphology to construct complex predicates, often motivated by visual properties of the referent. For example, Figure 1 shows common productive constructions in which the upright index finger represents a person, and Figure 2 shows how the same productive elements are used in the coinage of an equivalent for *social distancing*.

Figure 1: Complex predicates using the productive PERSON handshape.

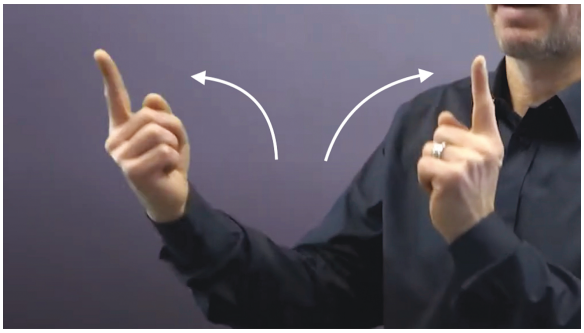

Figure 2: 'SOCIAL-DISTANCING'.

The use of such strategies in relation to COVID-related lexical innovation is consistent with an investigation of health-related terminology in Auslan (Australian Sign Language), in which relatively few terms were found to have a conventional lexicalised form, but rather were expressed by depicting strategies (Major et al. 2012).

Polysemy is prevalent in NZSL, and accordingly, lexical extension is used liberally for expressing new COVID-19 related meanings – by attaching a novel contextual meaning to an existing sign by mouthing the corresponding English term with the sign (McKee 2007).

Although unrelated in both modality and structure to the dominant spoken languages that surround them, signed languages are subject to constant influences arising from close language contact. Calques from the spoken language are therefore

relatively common, especially for two-part terms or phrases, as reflected in existing NZSL dictionary entries such as *open-minded*.[4]

Contact and borrowing between national signed languages is a common phenomenon. The visual-gestural production modality of signed languages means that they tend to share more phonological and morphological material (especially visually motivated elements) than spoken languages, which facilitates the sharing of lexicon across language boundaries (Quinto-Pozos/Adam 2015). Borrowing in the context of COVID-19 is therefore consistent with a general trend for NZSL users to readily adopt vocabulary from other signed languages to fill lexical gaps or expand the lexicon, and online exposure to texts in other signed languages seems to be accelerating this trend (McKee/McKee 2020). In the current study we identified four loans from overseas signed languages, which were apparently acquired from foreign online sources. Chief among these is the sign CORONAVIRUS / COVID, which is anecdotally said to have originated in Japan and was widely adopted into many signed languages early in the pandemic.

4.3 Interpreters and translators' use of lexical innovation strategies

Interpreters and translators may be agents of language change by introducing and disseminating neologisms to the target language community through their renditions (Lenihan 2018). The same typical lexical innovation resources discussed above are available as translation strategies in response to novel concepts or source text neologisms, or introduced into the target text as idiosyncratic usage by the interpreter/translator (Niska 1998). Which strategies are prevalent in translations is affected by the general trends of the target language, but may also vary according to individual interpreters (Van Obberghen 2016). The constraints of simultaneous interpreting (or short-notice translation) may also influence the use of certain strategies. For example, calques from English may be a default (but temporary) response when first hearing a neologism or unfamiliar term.

Interpreters and translators in our focus group interviews demonstrated a high level of awareness and concern about their potential influence on NZSL language change. Although as mentioned above, some new coinages may be the direct result of the demands of working under time pressure, our research participants indicated that for the most part, they made conscious choices about the strategies they used. Primarily, they tried to avoid coining neologisms. This was largely due to the imperative to make information accessible to the Deaf community in language that would be readily understood, at a time when the Deaf community was still unfamiliar with the English term or concept and thus had no referent for new signs. For the same

4 https://www.nzsl.nz/signs/5661 (last access: 10 June 2022).

reason, our research participants were wary about using calques from English such as *COVID-positive*. Thus, the demand for lexical and translational innovation driven by novelty in the source message was in tension with considerations of comprehensibility for the target language audience – among whom health literacy is also lower than in the general population (Witko et al. 2017). Interpreters and translators reported that rather than creating new 'terms', their focus especially in early communications was to paraphrase and expand new terms with examples to maximise transparency and understanding. For example, describing someone as 'having COVID' was considered preferable to using a calque such as *COVID-positive*, because 'positive' in NZSL is more likely to be understood in its usual sense of a 'desirable attribute/attitude' rather than the intended technical sense of being present.

A further reason for avoiding neologisms was that the conditions of lockdown and time pressure to render information meant that interpreters and translators had limited access to Deaf community feedback with regard to their understanding and uptake of any such neologisms. Our research participants also reported working mainly in isolation with limited opportunities to discuss new terms in the source text with colleagues, especially at the beginning of the pandemic. As a result, translational equivalents were variable and at times idiosyncratic, causing further concern that the Deaf target audience would not be able to associate these variable translations with the new concepts and English terms. In adddition, hearing interpreters especially were conscious of language authenticity considerations as second language users of NZSL (and indeed they reported some negative comments from Deaf NZSL users in social media about their vocabulary choices or apparent innovations on the basis that they were used by non-deaf interpreters).

Together, these concerns for comprehensibility and language authenticity may have predisposed our research participants to create translational equivalents using language-internal strategies, including semantic extension, paraphrasing, grammatical restructuring (changing nominal referents to verb phrases; rendering hypernyms as a list), and using productive morphology to create 'nonce' constructions with contextual reference. Since similar signed language interpreting activity was occurring in many countries, these somewhat parallel online texts also offered a resource for browsing lexicon and translational strategies, in a few cases leading to the introduction of loan signs.

5 Discussion

5.1 Status of COVID-19-related lexical innovation

Although interpreters and translators had to exercise creativity to render a proliferation of COVID-19 related terms and concepts, many of the strategies they employed did not lead to lexical neologisms in NZSL. While extended paraphrases were

progressively shortened, and some productive forms and lists of hyponyms over time became conventionalised translational equivalents, their status as fixed lexical signs or sign phrases is uncertain. This is partly a reflection of the nature of NZSL lexical innovation processes in general. As we noted in section 4.2, productive depicting constructions convey context-specific meanings; however their reference is not fully specified when decontextualised.

Examples of productive depicting constructions used in the context of COVID-19 terms are:

- *quarantine* (indicating a fenced-off area);
- *mask* (showing a mask stretching over the nose and mouth);
- *nasopharyngeal swab* (showing a swab being inserted into the nose);
- *social distancing* (the upright index fingers of both hands depicting persons, moving apart);
- *trans-Tasman bubble* – i.e. quarantine-free travel between Australia and New Zealand (the two hands representing planes flying in reciprocal directions).

Many of these constructions can have a range of contextual meanings. For example, any fenced-off area could be described with the same construction that is used for *quarantine*, and the construction used to describe *social distancing* could also be used in the general sense of people 'standing apart' or 'avoiding' each other. The specific intended meanings of such constructions in relation to COVID-19 may not be retrievable outside of the context of the immediate translation or interpretation. Thus, it would be difficult to justify listing the form 'two planes flying in reciprocal directions' in a dictionary with the sense *trans-Tasman bubble*, for example.

Similarly, the strategy of rendering hypernyms as lists of category members may be context-dependent and even when largely conventionalised, such lists cannot be said to have fixed lexical status (Kennedy et al. 1997).

Some terms had a lexical character, but had variable form across different individuals and contexts of use. An example is *border*, which was hitherto a low frequency concept in NZSL discourse, perhaps in the absence of land borders in New Zealand. (Interestingly, the sign that appears in the ODNZSL[5] is exemplified by a sentence about the border between USA and Mexico, suggesting that this sign is seldom used with local reference.) Interpreters explained that their translations of *border* and *border workers* in the COVID briefing situation varied according to the specific referent – e.g., sea port, airport, or state line (in reference to travel restrictions within Australia). When a generic term was unavoidable (e.g., a phrase such as *border closure*), they indicated a line or boundary in various ways, but doubted that these varying forms would become conventionalised given low frequency use beyond this situation.

5 https://www.nzsl.nz/signs/480 (last access: 10 June 2022).

5.2 Implications for NZSL lexicography

The lexicographical treatment of NZSL neologisms, including new coinages arising from the COVID-19 context, has to be considered against the background of our past and present lexicographical practices and the purpose and format of the ODNZSL. This dictionary and its precursors, as mentioned previously, used corpus evidence and community validation processes in the documentation of high frequency signs for general purposes. It is clear from the findings of the current study as well as from our ongoing lexicographical work that although similar language innovation processes are at work, many recent neologisms are of a different nature to previously documented high frequency signs. Not only are they used and recognised by much smaller subsets of the language community, but they often arise from interpreted or translated English material (in specialised areas) rather than spontaneous community usage.

In recent years, the ODNZSL has broadened its scope and has entered a number of NZSL neologisms in specialist areas such as school science and mathematics curricula, linguistics, and local place names. Expanding an existing online dictionary with neologisms requires changes in methodology to collect and validate data, as well as extensive revisions to the web application to meet diverse user needs (Expertisecentrum Vlaamse Gebarentaal n.d.). Although broadening the scope of the ODNZSL has already required some procedural changes, it is likely that a number of core principles regarding the addition of new entries will remain unchanged. When we asked our research participants how we could determine which, if any, of the COVID-19 related translational 'innovations' should be entered in the dictionary, their suggestions were consistent with these core criteria:

- The coinage should be **a fixed lexical sign or sign phrase**, not a one-off coinage or construction that only has reference within the immediate context.
- The coinage must have **longevity and transferability** – i.e., use beyond the context of COVID-19 briefings. Since the initial 2020 lockdown in New Zealand, the focus of COVID-19 reporting and discourse has continually changed and some of the original terms used in English and NZSL have altered or reduced in frequency. While such coinages might be of historical interest, the primary functions of the ODNZSL would not be well served by the inclusion of short-lived coinages that are no longer current.
- **Wider use:** there must be evidence of the sign being used by the Deaf community, beyond just translators and interpreters.

Very few of the terms mentioned in our findings meet these criteria. Perhaps unsurprisingly, the most cited case of an established new 'sign' in our data is the loan sign CORONAVIRUS / COVID, which now shows evidence of widespread community usage in New Zealand. In addition, a small number of productive depicting

constructions (such as MASK and NASOPHARYNGEAL-SWAB) are sufficiently lexicalised to consider entering in the dictionary.

Over time, further COVID-19 related signs may stabilise and meet these criteria, while other terms may fall out of use or not be taken up by the Deaf community. We will continue to monitor the coinages discussed in this paper as part of a wider research project investigating recent vocabulary growth in NZSL and the prevalence of language-internal vs. language-external factors in new sign creation. Since it is not possible to automatically extract relevant terms from video texts, we foresee a significant role for NZSL Share as a crowdsourced repository for new terms.

Due to the circumstances in 2020 and 2021, it has not yet been possible to effectively recruit community contributors to NZSL Share. As a result, NZSL Share was of limited use as a tool or strategy for rapid sharing of neologisms during the first wave of the pandemic. The rate of new terminology quickly outstripped community capacity to innovate and record equivalents. In practice, the interpreters on daily TV briefings became the most visible daily source of new vocabulary or phraseology. Some coinages recorded in NZSL Share were found to be idiosyncratic and novel, thus were not useful to interpreters and translators to communicate to a wide community audience (e.g., an individual's coinage for *antibody*). Translators and interpreters reported that while they looked for vocabulary in NZSL Share and the ODNZSL, more frequently they referenced each other's work to standarise their vocabulary usage as far as possible. Thus, the process of vocabulary creation and dissemination became somewhat self-referential without an effective standardising or advisory mechanism, which was not possible to organise effectively under the restricted circumstances in which this process unfolded. In spite of these limitations, community reactions to NZSL Share have been very positive and uptake by individuals and groups (such as the national Deaf education provider) is gradually increasing as we continue to promote the platform.

We note that other signed language dictionaries are grappling with similar methodological and lexicographical issues with regard to new signs. The Woordenboek Vlaamse Gebarentaal (Flemish Sign Language online dictionary) now includes an interface to allow for crowdsourced contributions; an expert validation committee meets several times a year to discuss such contributions and other neologisms identified through linguistic research. The validation status of signs in various regions is marked on entries in this online dictionary, with unvalidated signs shown as 'not yet known'. This approach allows the Flemish Sign Language dictionary to make new sign terminology (including COVID-19 related signs) available online quickly.

Whilst we acknowledge the potential benefits of documenting the NZSL lexicon in one place, we anticipate that NZSL Share will be maintained as a separate website at present. As a separate platform, NZSL Share can include community contributions that do not (yet) meet the criteria of fixed lexical form and longevity as well as signs that are not typically included in a non-specialist dictionary, such as brand names or name signs used with the Deaf community to refer to public figures. It

will provide a forum for consensus-building and dissemination of new signs in the NZSL-using community, in the absence of a language planning body or expert committee. The platform will also allow us to adapt our processes to include online validation with specific groups of language users. At the same time, the ODNZSL can continue to be a trusted resource of a community-validated lexicon, and a consistent format can be maintained for dictionary entries, which include learner-focused example sentence videos as well as grammatical and user information that require an editorial role.

6 Conclusion

This case study of COVID-19 related lexical innovation in NZSL has shown that the main driver for new terminology has been live interpreting and translation of government and public health information. There has been rapid generation of new coinages in both directly COVID-19 related and adjacent fields, using both language-internal strategies (semantic extension, paraphrasing, grammatical restructuring, productive morphology) and language-external resources (calques and loans). Interpreters and translators as the primary source of this lexical innovation showed a high level of concern for language authenticity and comprehensibility, which influenced the strategies they chose to render new terms and concepts into NZSL.

Very few of the new coinages meet the criteria for being entered in the ODNZSL, due to the uncertain lexical status of some constructions, variable and at times idiosyncratic usage, and difficulties in determining dissemination and adoption of new signs in the wider NZSL community.

While COVID-19 related lexical development therefore will not have an immediate impact on the ODNZSL, this study has implications for the role(s) and format of the dictionary and highlights potential changes required in our lexicographic processes to account for the nature of NZSL neologisms.

Although it was found to be of limited immediate use as a tool for rapid sharing of neologisms during the first wave of the pandemic, it is expected that the crowdsourcing platform NZSL Share, launched in 2020, will facilitate collection, community validation and dissemination of sign neologisms.

Bibliography

Dictionaries

A Dictionary of New Zealand Sign Language. Ed. by Kennedy, Graeme et al. Auckland, New Zealand: Auckland University Press with Bridget Williams Books 1997.

A Concise Dictionary of New Zealand Sign Language. Ed. by Kennedy, Graeme D. et al. Wellington, New Zealand: Bridget Williams Books 2002. (2002).

ODNZSL = *Online Dictionary of New Zealand Sign Language*. Ed. by McKee, David et al. [https://www.nzsl.nz, last access: August 24, 2021].

NZSL Share. Maintained by Deaf Studies Research Unit. Wellington: Victoria University of Wellington (n.d.) [https://www.nzslshare.nz, last access: August 24, 2021].

Woordenboek Vlaamse Gebarentaal. Ed. by Expertisecentrum Vlaamse Gebarentaal. (n.d.). [https://www.vlaamsegebarentaal.be/methodologie#methodologie, last access: August 25, 2021].

Monographs, edited volumes and articles in edited volumes or journals

Collins-Ahlgren, Marianne (1989): *Aspects of New Zealand Sign Language*. Victoria University of Wellington.

Harlow, Ray (1993): Lexical expansion in Māori. In: *The Journal of the Polynesian Society* 102(1),99–107.

Jernudd, Björn H. (2013): Linguistic sources for terminological innovation: Policy and opinion. In: Rubin, Joan/Jernudd, Björn H./DasGupta, Jyotirindra/Fishman, Joshua A./Ferguson, Charles A. (eds.): *Language Planning Processes*. Berlin / Boston: De Gruyter Mouton, 215–236. DOI:10.1515/9783110806199.215.

Johnston, Trevor A. (2012): Lexical frequency in sign languages. In: *Journal of deaf studies and deaf education* 17(2),163–93. DOI:10.1093/deafed/enr036.

Lenihan, Aoife (2018): Language Policy and New Media: An Age of Convergence Culture. In: Tollefson, James W./Pérez-Milans, Miguel (eds.): Oxford Handbook of Language Policy and Planning. 1–21. DOI:10.1093/oxfordhb/9780190458898.013.33.

Levitt, Dan (1986): *An introduction to New Zealand Sign Language*. Auckland: National Foundation of the Deaf.

Major, George, et al. (2012): Exploring lexical gaps in Australian Sign Language for the purposes of health communication. In: *Communication and Medicine* 9(1),37–47.

McKee, Rachel (2007): Hand to mouth : The role of mouthing in NZSL. In: *Across the Board: Australian Association of Sign Language Interpreters (Victoria)* 2(4),3–12. DOI:10.13140/2.1.2032.0965.

McKee, Rachel (2006): The eyes have it! Our third offical language: New Zealand Sign Language. In: *Journal of New Zealand Studies* NS-4-5, 129–148.

McKee, Rachel/McKee, David (2020): Globalization, hybridity and vitality in the linguistic ideologies of New Zealand Sign Language users. In: *Language and Communication* 74, 164–181.

McKee, Rachel/McKee, David (2013): Making an online dictionary of New Zealand Sign Language. In: *Lexikos* 23, 500–531.

Ní Ghearáin, Helena (2011): The problematic relationship between institutionalised Irish terminology development and the Gaeltacht speech community: dynamics of acceptance and estrangement. In: *Language Policy* 10, 305–323. DOI:10.1007/s10993-011-9216-5.

Niska, Helke (1998): *Explorations in translational creativity: Strategies for interpreting neologism*. Stockholm University.

Quinto-Pozos, David/Adam, Robert (2015): Sign language contact. In: Bayley, Robert, et al. (eds.): *Oxford Handbook of Sociolinguistics*. Oxford: Oxford University Press, 1–16. DOI:10.1093/oxfordhb/9780199744084.013.0019.

Vale, Mireille (2015): A study of the users of an online sign language dictionary. In: Kosem, I., et al. (eds.): *Electronic Lexicography in the 21st Century: Linking Lexical Data in the Digital* Age. *Proceedings of the ELex 2015 Conference*, *11–13 August 2015, Herstmonceux Castle, United Kingdom*. Ljubljana/Brighton: Trojina, Institute for Applied Slovene Studies/Lexical Computing Ltd., 281–303.

Van Obberghen, Mathieu (2016): *Onderzoek naar het tolken van neologismen: Analyse en reflectie*. Brussel: Vrije Universiteit Brussel.

Witko, Joanne, et al. (2017): Deaf New Zealand Sign Language users' access to healthcare. In: *New Zealand Medical Journal* 130(1466),53–61. DOI:10.1161/01.STR.22.9.1117.