(Re)turning research into pedagogical practice: A case study of translational language research in Warlpiri

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**Abstract**

Speech corpora created primarily for linguistic research are not often easily repurposed for practical use by the communities who participated in the research. This chapter describes a process whereby methods and materials collected for language documentation research have been returned to speakers in communities; this involves the implementation of professional development activities for Warlpiri educators in bilingual education programs. Documentation of children’s speech took place in four Warlpiri communities in 2010. To make the research results available to educators in Warlpiri communities in an easily accessible way, the researcher produced short videos showing analyses of the children’s speech. These online videos, along with audio recordings and written transcripts of the children’s speech, were utilised by a team of linguists and educators at professional development workshops in the Northern Territory Department of Education. Educators actively worked with the materials, discussed issues relating to children’s oral language development, and identified potential pedagogical practices. Through this process the materials were returned to the Warlpiri community and utilised in an active cycle of locally focused professional learning activities.

**Keywords:** Warlpiri, bilingual education, oral language, curriculum, children
Introduction

Responsible linguistic research practice demands collaboration between communities and researchers (Czaykowska-Higgins 2009: 59; Dobrin & Schwarz 2016). Collaboration is manifested in a wide range of ways (Ahlers 2009; Benedicto et al. 2007), such as decision-making about research; training fieldworkers (Florey 2008); developing adult education programs (Little, Wysote, McClay & Coon 2015; Miyashita & Chatsis 2013); returning language documentation materials and the creation of community archives (Linn 2014); and the return of research findings in accessible forms for the creation of language resources. Documentation of children’s language in endangered language contexts is important for understanding language maintenance and change, as the speech of children and young people is an indicator of ethnolinguistic vitality. Additionally, children may play a role in language innovation and shift, if change is occurring. However, the relationship between the data collected, research outputs, and ways to respond practically to community needs and wants might not be immediately clear.

This chapter describes a process whereby methods and materials from Warlpiri child language documentation research have been returned to speakers in communities and become the cornerstone of professional development activities for educators in bilingual education programs over several years. The education activities were enabled through a collaboration of Warlpiri and non-Warlpiri school-based educators and curriculum support staff.

The chapter sets out the context of the research, how research findings were communicated to community members through the creation of accessible audiovisual reports, and the collaborative process of repurposing the reports and transcripts of children’s speech for professional learning cycles for Warlpiri educators, with a focus on the teaching and learning of oral language. The processes are more than a return of the materials. They involve interacting with the materials in cycles that enrich teachers’ understandings of language structures, linguistic terminology, analysis of oral texts, identification of learning needs, and development of teaching activities. The teachers then moved beyond interacting with the materials provided, to creating their own recordings of children’s speech and analysing those. In doing this, they transformed their teaching practices on their own terms. The repurposing of methods and materials was an innovative undertaking, drawing on specific speech corpora and collaborations of local educators, curriculum support staff, and researchers.

We begin by introducing the Warlpiri communities and their bilingual education programs, then detail the language data and its return in the form of audiovisual reports, audio recordings, and transcripts. We then explain the process of using these as a basis for a professional learning program, and the cycles of learning that have taken place over four years.

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1 Our thanks to all Warlpiri educators, Warlpiri community members, and non-Warlpiri Northern Territory Department of Education staff who have collaborated in the professional learning project described in this chapter. Thanks also to the children, families, and Northern Territory Department of Education staff who were involved in the data collection that formed the basis for the professional learning project. Field research on the project was carried out as part of and within Ethical Research Approval by the Cooperative Research Centre for the project ‘Cooperative Research Centre for Remote Economic Participation, Remote Education Systems, Warlpiri Triangle site’ 2012–2016.
We conclude with a discussion of the ongoing and enduring research and practice relationship and collaboration that resulted, of the contribution such a collaboration can make to community and school-based language maintenance efforts, and the potential to use similar data in other language contexts.

**Background to the Warlpiri communities and Warlpiri Bilingual Education Programs**

Warlpiri–English bilingual programs operate in four remote Warlpiri communities in the Northern Territory (NT) (see Figure 1), forming the education- and language-related Warlpiri Triangle region. The populations of the four communities range from approximately 200–300 (Nyirrpi and Willowra) to 600–700 (Lajamanu and Yuendumu). The Warlpiri travel frequently between communities and are in constant communication with each other. Although Warlpiri is the main language spoken in the communities, they are multilingual environments. Other traditional Australian languages are spoken in the communities by relatives, friends, and visitors, and most people speak varieties of English. There is some evidence of English
influence on Warlpiri (Bavin & Shopen 1985; O’Shannessy 2012), and in Lajamanu community, young people speak a new mixed language, Light Warlpiri (O’Shannessy 2006, 2008, 2013, 2016), and also learn Warlpiri.

The Warlpiri schools’ bilingual education programs are part of the Northern Territory Bilingual Education Program that began in the 1970s (Devlin, Disbray, & Friedman 2017), to enable Aboriginal children in remote communities to have “their primary education in Aboriginal languages” (Department of Education 1973: 1). The programs in the Warlpiri schools were among the first bilingual programs (Disbray 2014), with the program at Yuendumu beginning in 1975 (Ross & Baarda 2017). Community demand for bilingual education led to the development of programs at Willowra in 1976 (Vaarzon-Morel & Wafer 2017) and Lajamanu in 1981 (Nicholls 1998). The outstation schools established in the mid to late 1980s at Wayilinyipa and Nyirrpi (later to become a community school) also ran Warlpiri programs. Since then, the political will to support the program has varied, but Warlpiri educators and community members have remained committed to teaching their language and culture in the schools, and the programs continue.

A challenge is that in the hustle and bustle of everyday planning and teaching in schools, Warlpiri educators are rarely able to take the time to develop their skills in the linguistic analysis of Warlpiri, or to set up the logistics involved in assessing oral language development. Most often, in contexts such as this one, the emphasis is on first language and English literacy, and mathematics. Development of oracy in the children’s first language is assumed, and rarely evaluated carefully. Opportunities for the professional development of Warlpiri teachers are few, but some are provided by the annual Warlpiri Triangle and quarterly *Jinta-jarrimi* (‘Becoming one’) workshops. These workshops involve personnel from all the Warlpiri schools as well as community members, including elders. They are a key and enduring part of the program. At each workshop, educators and community members share the progress of their program, exchange teaching strategies and resources, plan together, and undertake professional learning. The current project, the development and delivery of professional learning on children’s oral language development, took place in the context of these workshops.

**Recording for research**

The language documentation data used in the project was gathered by the first author, a researcher and former teacher-linguist at a Warlpiri school in one community, Lajamanu. She began documenting children’s language in Lajamanu in 2002 (O’Shannessy 2005, 2008, 2013). Here, although a new variety of Warlpiri, Light Warlpiri, has evolved, the children still learn traditional Warlpiri. Having seen a dramatic change in children’s language in one Warlpiri community, O’Shannessy was interested to know how Warlpiri children in the other communities were speaking. There are few cross-sectional studies of children’s speech in Aboriginal communities, yet a snapshot of how children are speaking at one point in time can be a good reference for the community, especially teachers, and for future studies. A similar kind of project on a smaller scale had been undertaken earlier in the Warlpiri schools as part of the bilingual education program, and Warlpiri teachers had found it instructive to read through transcripts of children’s stories and identify learning needs. The project described here built on the earlier method, in much greater detail and with more support for the teachers, several years later.
In 2010, 71 children aged 5–14 years, drawn from across the four Warlpiri communities, were recorded telling stories based on visual stimuli. Specifically, 15 children from Lajamanu, 14 from Willowra, 18 from Nyirrpi, and 24 from Yuendumu were recorded.

The aim was to enable a thorough picture of the children’s language skills at that point in time. In the study, children and adults individually told a series of short narratives based on wordless picture books that had been created specifically for the documentation of morphosyntactic structures in varieties of Warlpiri (O’Shannessy 2004). In particular, the stories aimed to elicit overt subjects of transitive verbs during the telling of the stories, because one focus of the study was to understand how children made use of ergative case-marking (suffixes on overt subjects of transitive verbs) and word order in their speech. The question arose because of contact with English, which uses only word order to indicate grammatical relations, where Warlpiri uses ergative-absolutive case-marking. Recordings of spontaneous interactions would probably not have yielded enough tokens of overt transitive
subjects, because cross-linguistically subjects of transitive clauses are more likely to occur as pronouns, or to be elided in null-subject languages, than to occur as lexical nouns and lexical noun phrases, i.e. lexical nouns with other features such as determiners or descriptive material (Du Bois 2003). In Warlpiri, transitive and intransitive subjects can be elided, so this method of creating contexts in which to produce them in a naturalistic manner was necessary, and proved to be effective.

The advantage of this method is that the speakers tell the stories freely in their own words, but opportunities to produce the target structures are optimised, and the structures of the stories can be compared across speakers, enabling a profile of speech across age groups in the communities. Since the pictures depict short narratives, many other structures and a variety of vocabulary are elicited at the same time. The children were recorded as they told the stories based on the picture books. The books have themes and settings familiar to the children, such as caring for sick people, going out hunting, and encounters with monsters. The illustrations are colourful and engaging, and children often told dramatic, rich, and exciting stories, using a range of expressive discourse features.

Returning the research findings

There were three stages in the return of the materials to the communities. First, at the time of data collection, each child’s set of stories was copied to CD and the CDs distributed to the children to listen to at home (in more recent iterations of the method, the recordings are given to families on USB drives, as computers and other technology such as PlayStations and Xboxes have become more common than CD players). The families’ responses to this were very positive, as it was a way of celebrating the children’s speech. Schools are very focused on children’s development of literacy, English, and mathematics in education, and on the quest for improvement of these skills. In this project, it was refreshing for the children, families, and educators to have their Warlpiri speaking skills celebrated.

The second stage was that several children’s transcripts along with the picture stimuli were made into mini-movies (2–3 minutes long) and distributed to each school, and were viewed during the Warlpiri Triangle meetings in evening sharing sessions. At this point there was no structure to the viewing and the mini-movies were not presented in the main part of the meetings.

The third stage is the most important and is the focus of this chapter. In return for giving permission to the researcher to record children in school time, the Northern Territory Department of Education (NT DoE) asked for a report about the children’s language. During the recording sessions, Warlpiri and non-Warlpiri teachers in each school expressed interest in the findings of the study. O’Shannessy opted to produce video reports instead of a traditional written report, because she wanted to express the findings in a way that made sense to, and was accessible to, educators in Warlpiri schools. It also meant that the reports were accessible to others in the NT Department of Education who do not have a background in linguistics. Few people would be likely to read a written report, but an accessible online resource might reach more people, and be more useful to those it reached. As the researcher had a strong existing relationship with the educators and solid experience with the school programs, she
was able to contribute to, and work collaboratively with, the school and curriculum staff in their efforts to turn a resource developed from research into a practical school resource.

Each approximately 12-minute video includes a voice-over explaining grammatical patterns in Warlpiri, which are illustrated by examples from children’s speech, using the children’s anonymised voices. There are four videos in the same format, but each one has excerpts from the speech of children in one community, making it, to an extent, community-specific. The voice-over explains some features of Warlpiri structure, using both plain English and linguistic terminology, and gives examples from the children’s speech, demonstrating the children’s knowledge and use of these structures. Examples include complex Warlpiri verbs, grammatical structures of nouns and verbs, word order, and examples of code-switching and borrowing. This is illustrated in the following extract of the voice-over from a video report.

One way that Warlpiri differs from English is in showing who is doing an action to someone or something else. In Warlpiri there’s an ending on the word that shows who or what is doing an action, called the ergative ending. If someone says “Karnta-wita-ngku ka mani maliki” [extract of child’s voice], we know that the woman did the action. In the children’s Warlpiri, they do use the ergative ending most of the time. This is great, because it’s an important Warlpiri element.

![Ergative ending](image)

**Figure 3.** Two screenshots from Nyirrpi Children’s Warlpiri Report 2012 (https://www.youtube.com/watch?v=FGYSCXmrpys)

The video reports were made available on YouTube, with the permission of the Warlpiri educators.² Along with the videos, the audio recordings and transcripts of the stories were sent to each school and to the NT DoE curriculum support officer (the second author, then employed as regional linguist). She found that the videos were not widely viewed at that time but had the potential to be a useful resource.³ For this to happen, it seemed that a context for really engaging

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³ By the time of writing, however, the videos have had between 300 and 1300 views.
with the reports had to be created. A proposal was made to the Warlpiri educators that the focus of the 2012 workshops might be oral language teaching and learning, incorporating the children’s language video reports. The Warlpiri teachers and assistant teachers were keen to take this up. Between 2012 and 2016 educators took part in five professional learning cycles focused on oral language teaching and learning, and the video reports and transcripts provided the basis for these.

**Turning research findings into professional learning opportunities for teachers**

Five multi-day workshops with 18–30 school staff were facilitated by the second, third, and, later, the fourth author, all NT DoE personnel at the time. The curriculum officer communicated with the researcher, who regularly visits the communities and gave ongoing advice and support to curriculum and school staff. Workshop methods included cycles of watching the video reports, identifying key points, analysing transcripts, and planning learning activities for classes.

Each video covered the same grammatical structures, customised for each community, so the Warlpiri and non-Warlpiri educators were able to access the elements they needed most. For instance, Warlpiri educators already know Warlpiri, so the examples were meaningful to them. By relating English linguistic terminology to familiar language structures of their own first language, they had a context for learning the linguistic terms, e.g. verb, ergative, suffix. The non-Warlpiri educators, who did not know Warlpiri, were able to learn something about the structures of Warlpiri, explained in plain English, as well as the linguistic terminology. For instance, as shown above, the commentary in the video reports drew attention to endings on nouns in Warlpiri, their purposes, and the children’s production of them. In the following example from a child’s story, shown in the video report, there is the actor or ergative marker -ngku, an allative affix expressing movement towards something -kurra, plus a suffix meaning ‘then’ -lku.

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\text{Ngula kurdu-ngku drive-manu turaki ngurra-kurra-lku.}
\]

ANAPH child-ERG drive-CAUS truck home-ALL-then

‘Then the child drove the truck home.’

Learning the linguistic terms is important not only to provide a learning bridge between community members and the research, but also to enrich teachers’ skills and knowledge. Both understanding and using linguistic terminology are crucial to a teacher’s ability to make use of curriculum and assessment documents. Few professional learning opportunities address this. The Warlpiri child language videos provided information about children’s language locally, as well as oral language development, language description, and teaching and monitoring more broadly.

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4 Abbreviations: ALL ‘allative’; ANAPH ‘anaphoric’; CAUS ‘causative’; ERG ‘ergative’.
In the professional learning cycle, workshop participants identified what they found important from the reports. They noted, for instance, that children used a range of vocabulary, including different verb types, and that there was some English appearing in their verbs. The specific English words that appeared are actually widespread in adult colloquial speech, but seeing them in the video reports and transcripts brought them to the teachers’ attention. After watching the reports, educators viewed a selection of the transcripts of children’s speech from their respective communities. They were able to work on stories told by children in their own community, making the task more immediately relevant. They examined the transcripts and identified features that demonstrated the children’s knowledge of Warlpiri and any learning needs that appeared. They identified features such as discourse markers and strategies, and pronunciation features found in colloquial speech styles. The amount of detail and speaker engagement in the children’s stories varied, with some being rich in detail and excitement, and others less so.

These analysis sessions increased Indigenous and non-Indigenous teachers’ linguistic knowledge and provided an intensive opportunity to better understand children’s oral language development from a strengths-based perspective. Over the course of the workshops, the teachers’ observations moved from noticing ‘errors’, or features that are more colloquial and not part of documented classic Warlpiri speech, to also noticing what the students did know. It is important to identify the students’ language strengths, as well as needs, to evaluate their progress fairly and plan ways to build on the strengths. The video reports were developed to celebrate children’s abilities, and so, in the workshops, it was easy to draw attention to what they revealed children can do, and do well. Workshop participants identified the ‘best thing’ about the workshops as “seeing that kids can speak strong Warlpiri” and “the videos [were] about children talking. It’s good for kids to learn more Warlpiri and to share ideas and it’s good to see work from kids” (Northern Territory Department of Education 2012: 59).

In a final step in the cycle, teachers mapped their observations about children’s speech production to their teaching program, drawing on curriculum documents and establishing ways to teach and monitor oral language development.

The professional learning cycle became:

1. View video;
2. Identify key points and relevant linguistic terminology;
3. Analyse children’s transcripts; and
4. Plan and implement teaching activities and monitoring methods.

The cycle was repeated in each workshop, tailored each time according to the feedback from educators on what would be helpful. Challenges were noted. In particular, the lack of follow-up or opportunity for Warlpiri educators to apply newly acquired knowledge back in schools was a barrier. To some extent, this was countered by the ongoing attention to oral language teaching and learning, which allowed teachers to refresh and take opportunities when they were available at their school.

Part of the professional learning cycle was to develop skills for critical listening. Repetition of the cycle allowed the teachers to develop these skills, as they revisited the texts and analysed them more deeply. Over time, more attention was paid to the kinds of language knowledge the
students demonstrated, and the types of teaching and learning content that could follow. With this growing skill, the content was increasingly aligned to the relevant learning outcomes in the Northern Territory Curriculum Framework for Indigenous Languages and Cultures (NTCF ILC).5

The impacts of the professional learning cycles using the repurposed child language research data emerged incrementally but strongly. The third author and Warlpiri facilitator in the workshops explained that analysing the materials and transferring the analyses into practical teaching and learning strategies helped her to understand the children’s oral language development better. Key components for her were the repetition of the cycle in consecutive workshops, and the analysis of children’s transcripts. The professional learning cycles, learnings, and resultant planning were written up in the workshop reports, which are published as Northern Territory Department of Education documents (see, for example, Northern Territory Department of Education 2016; Northern Territory Department of Education 2017).

By the final cycle, the second author (Disbray) was no longer employed by the NT DoE, and was carrying out research. One of her research tasks was to reflect critically with O’Shannessy on the professional learning cycles to date, thus beginning a further research cycle. Disbray remained involved with the Warlpiri Triangle workshops, and Warlpiri educator Barbara Martin (third author) and newly arrived Yuendumu School linguist Gretel Macdonald (fourth author) collaborated to reflect on the professional learning to date, and to extend it. In this way, the research and practice interplay was enduring and ever emergent.

Under the stewardship of Martin and Macdonald, the final sessions focused on building familiarity with the characterisation of oral language structures and features in the NTCF ILC (Northern Territory Department of Education and Training 2002) in order to support assessment of, and reporting on, oral language. This aspect of the project provided a bridge between the child language research and the education infrastructure teachers and assistant teachers use. The sessions required familiarity with linguistic vocabulary and linguistic concepts, an awareness of which had been growing over prior sessions. In a sense, Warlpiri educators participating in the Warlpiri Triangle and jinta-jarrimi ‘Becoming one’ workshops had been ‘getting into the habit’ of talking about oral language and were now in a position to apply this knowledge. They took a bottom-up approach, first analysing representative samples of student speech from different year levels and then drawing on teacher-as-native-speaker intuitions to identify whether this student was ‘low’, ‘medium’, or ‘high’ in their oral language proficiency. Finally they would make the connection between Warlpiri student speech samples and the language structures and features that characterised the relevant level for that year group in the NTCF ILC. In taking this approach, they showed their capacity to undertake the monitoring and assessment processes required by the NT DoE. This is important, as it positions Warlpiri language as a rigorously taught subject in the education system.

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5 A revised Northern Territory Indigenous Languages and Cultures Curriculum is replacing the NTCF ILC. The revised curriculum has been drafted and was trialled in schools across the Northern Territory in 2018.
Conclusion

In this chapter we have described the process of repurposing a spoken corpus of child language data and a collaboration to make reporting back on research meaningful and useful to a community, well beyond the original research. We describe an enduring research and practice relationship, which sought out opportunities to share specific and relevant research knowledge with community members. This moved beyond observations about the language of individual children or children broadly in the community: with the involvement of education department staff, this collaboration sought to upskill educators, Warlpiri and non-Warlpiri, about Warlpiri child language development and metalanguage, and to apply this knowledge in the task of teaching and monitoring oral language as a core and valid learning area in school.

Warlpiri educators have expressed concern about potential language shift in their communities. In these contexts of language endangerment, professional learning which draws on accessible – e.g. multimodal, plain English, and locally relevant resources such as the videos – and clear processes is valuable because it can facilitate critical conversations at the community level about language shift. The video reports and the transcripts allowed educators to look closely at what individual children were actually saying, rather than relying on memory or intuition, and to celebrate their language skills. Ultimately, these types of resources have the potential to motivate action on language maintenance, based on observable evidence and skilled, careful reflection. These factors – an evidence base, increasing teacher expertise, and its application to a centralised curriculum – have in addition an important bearing on school-based language maintenance efforts. They give Warlpiri educators the tools to talk back to the system, strengthening their calls for greater support for Warlpiri teaching and learning. Thus, through this collaboration, Warlpiri educators and support staff increased their capacity to transform their teaching, as well as to advocate for pursuing Warlpiri teaching and learning on their own terms.

The approach taken in this collaboration, using child language recordings, can be used in other settings. In language revitalisation settings, for instance, such data could be similarly used to look at heritage language items or features children use in code-alternations, as a basis for planning teaching and learning. What is critical to success is the combined and varied skills of the team and the willingness to explore the potential of research data for community uses and to find ways to actualise this potential over time.

References


