Language Learning and Literacy Development in the Field

Cynthia Schneider
University of New England
cindy.schneider@une.edu.au

Abstract. Linguistic fieldworkers undertake the highly challenging task of entering a new community, often one with which they have no previous experience, and documenting the local language. While there is a good deal of discussion in the literature about the various issues related to fieldwork (methodology, technology, field site, ethics, etc.), much less attention is paid to two important aspects of applied linguistics that relate directly to fieldwork: language learning and community literacy. This article makes the argument that linguists who engage with language learning and literacy development in their own practice will enjoy improved outcomes for both themselves and their host community. The current literature on language learning theory is then reviewed, with a particular view to how this knowledge can be applied to the field. Recent publications on literacy theory and practice are also appraised in a similar fashion.

Keywords: linguistic fieldwork, language learning, literacy

1. Introduction

Linguistic fieldworkers undertake the highly challenging task of entering a new community, often one with which they have no previous experience, and carrying out text analysis and/or elicitation of the language. There is a good deal of discussion in

the literature about the various issues related to fieldwork: choice of field sites and language teachers; being culturally sensitive; research ethics; understanding the larger sociopolitical context; avoiding Eurocentrism; fieldwork methodology; organisation of data; and effective use of technology, to name just a few (Bickford 1998; Bowern 2008; Newman & Ratliff 2001).

Much less attention is paid to two important applications of applied linguistics that are directly relevant to linguistic fieldwork: <u>language learning</u> and <u>literacy development</u>. Fieldwork requires a certain amount of language learning, and learning an exotic language can be highly challenging, even for well-trained linguists. According to Evans (2010:49), "[...] a language that is structurally very different from your own can present such formidable problems of understanding that it takes a talented and well-trained adult years and sometimes decades of exposure to make sense of what children learn effortlessly in the first years of their lives." It stands to reason, then, that a basic familiarity with the research in second language learning may be useful for field linguists who are striving to learn an exotic language without having, as Evans (2010:9) puts it, a Berlitz phrasebook at their disposal.

An additional role of the field linguist is to facilitate literacy development in the community. Governments increasingly realise the value of a mother tongue education, at least for the first few years of school, but training and resources may not be readily available. Local teachers may desire to implement an indigenous language literacy program, but many lack the requisite support for developing graded literacy materials. This is where the field linguist, already familiar with the language, has a role to play. Of course, pedagogical materials development is a sub-discipline in its own right; linguistic professionals therefore require training in order to perform this task well. If we can learn to be amateur biologists and audiovisual recording technologists in the field, then surely it is not beyond our ken to gain a basic understanding of the issues involved in a quality community literacy program.

The term "linguistic fieldwork" can be interpreted in a variety of ways, and so in §2 its parameters are established. Sections 3 and 4 deal with language learning and literacy development, respectively. Finally, §5 presents some brief concluding remarks.

2. What is "linguistic fieldwork"?

Before we can consider the fieldworker's potential role as language learner or literacy consultant, it is worthwhile to first establish what is meant by "linguistic fieldwork". Depending on one's background and experience, this term can have a number of different interpretations. Hyman (2001:15-22) proposes that as an activity, fieldwork encompasses a range of practices that can be viewed on a scale of being more-or less-prototypically "fieldwork-like". This is represented in Table 1:

	Most prototypical of		Least prototypical
	fieldwork		of fieldwork
Elicitee	other	←	self
Elicitor	self		other
Distance from home	far	←	near
Setting	small	←	large
Duration	long		short
Language	exotic		well-known
Subject matter	language in context		language as a for- mal system
Data	naturalistic	←	controlled
Motivation	language-driven		theory-driven

Table 1. The features of linguistic fieldwork (adapted from Hyman 2001:21)

On the one extreme (most prototypical of fieldwork), the linguist spends months (or even years!) in a small, remote village, living with the language community, participating in local activities, and recording and observing a language as it is used by other people in everyday life. The language would be "exotic" in the sense that it is genetically and typologically distinctive from the linguist's mother tongue, and the linguist would be describing the language "on its own terms", with no motivation to

fit the language data into a particular linguistic theory. The language is studied within its social context.

The situation at the other end of the continuum would be the least prototypical instantiation of fieldwork. An example of this would be a semester-long field methods course in a university classroom, removed in geography and spirit from the language's natural setting. Students elicit information from a native speaker by asking targeted questions so as to test the validity of a theoretical model, or to resolve a particular question about the language's structure. The objective is to study a particular aspect of the language's grammar and then write a paper about it. Since the native speaker teacher is using the language in an artificial, controlled environment, it is difficult to replicate normal social context; the language thus tends to be viewed as a "data set" rather than as a vehicle for communication.

This paper assumes the former scenario, where the activities of the linguist more closely approximate "prototypical" fieldwork. In this type of situation, where the linguist is living amongst native speakers, language learning and community literacy are important aspects of the fieldworker's research.

3. Language learning

This section begins by arguing that language learning is a worthwhile part of linguistic fieldwork (§3.1). Section 3.2 presents a case study that underlines this point; then §3.3 briefly surveys some of the literature on language learning that is relevant to the field.

3.1. The importance of language learning in the field

The importance of language learning to field linguistics has long been recognised. The great linguist Leonard Bloomfield, who contributed to our understanding of American Indian languages, would not attempt a linguistic analysis of a language until he had acquired some speaking ability (Haas 1953:809). The late Summer Institute of Linguistics (SIL) linguist, Sarah Gudschinsky, noted the value of working in the language under study, as it produces much more reliable data than translation from another language (Gudschinsky 1967:7).

More recently, six experienced linguistic fieldworkers contributing to the edited volume, *Linguistic Fieldwork*, report that "speaking ability contributed greatly to their fieldwork success (and that lack of speaking ability hindered their progress)" (Newman & Ratliff 2001:4). Hale (2001:81) suggests that treating the fieldwork situation as an opportunity to learn the language, and making language-learning the primary objective, is a very effective strategy in language description. Dimmendaal (2001:72) and Mc Laughlin & Sall (2001:202) recount their own personal experiences where simply listening to natural speech taught them a great deal about the language. Everett (2001: 171), who conducted his fieldwork monolingually, suggests that the fieldwork experience, as a whole, is more rewarding when the linguist speaks the language well, because it leads to greater social integration and respect. According to Bowern (2008:9), learning the language allows for a larger vocabulary and greater insight into the social factors of language use. Similarly, Crowley (2007:155) claims that language learning facilitates linguistic analysis and makes the overall fieldwork experience more enjoyable.

Yet, many are still not genuinely convinced of the value of language learning. It is not at all unusual to hear a linguist suggest that "you don't need to speak the language to be able to write about it". Such a sentiment implies that language learning is a nice "extra" at best, or a waste of time at worst, and ignores the real benefits of "using" language as opposed to simply "analysing" it. But even the most elementary efforts in language learning can be linguistically informative: formulaic greetings and the most basic verbs and nouns often harken back to a previous stage of the language's development, and can reveal something about how it has changed. As time goes by and the linguist's ability gradually improves, the more frequently she will notice pronunciations, word formations, and syntactic structures that are used in natural speech but are not as apparent from elicitation or translation of texts. When the linguist can speak the language, she will be able to test out her theories in informal conversation. Gaps in paradigms are more easily noticed, and the overall analysis will have greater depth than it would otherwise.

3.2. Case study: Language learning is linguistic analysis

In 2008, I spent seven months in Papua New Guinea conducting research on a Baining language, Qairaq, with the goal of writing a descriptive grammar. I researched Qairag by recording, transcribing, and analysing texts, and doing a little elicitation along the way. I also tried to learn the language by using it in my daily interactions. Interestingly, my approaches towards linguistic analysis on the one hand, and language learning on the other, were quite different. As a fieldworker, I made conscious and concerted effort to "cover all the bases" in terms of linguistic analysis, working carefully through my data to ensure that I was obtaining an overall picture of the language. This involved a good deal of conscious reflection. In contrast, my approach towards language learning was unconscious and unsystematic. I never paused to think about how I might best go about learning Qairaq, aside from just trying to use it in conversation. I never considered employing any other language learning strategies. This is in spite of the fact that I have formal training in second language acquisition and worked as a TESOL teacher for many years! It never occurred to me that I was effectively a second language learner, no different from any learner in my own ESL classroom, except that my learning was completely self-directed, rather than teacher-directed. This illustrates how estranged the sub-field of "language learning" is from "language description/fieldwork", simply because the two areas have different labels.

After seven months of working on Qairaq, I was preparing to leave the field. The community was preparing a "send-off", and I was asked to deliver a farewell speech in the Qairaq language. Just like any of the second language learners in my own language classroom, I didn't want to make a fool of myself! Rather than trying to improvise on the night, I decided to prepare my speech beforehand.

As I wrote up draft after draft of my speech, checking its grammaticality and appropriateness with my language consultant, I came up with many questions about Qairaq syntax and pronunciation — questions that had not occurred to me before. It dawned on me that I was learning grammar in just the way that I would encourage my own intermediate-level ESL students to learn it — by writing texts. The practice of writing texts to facilitate the learning of grammar has been attested in the literature (cf. MacGowan-Gilhooly 1991; Gordon 2008:246). Amazingly, not once during this

entire seven-month period had it occurred to me that writing my own texts and having them corrected by a native speaker might be a valuable learning tool for me. This is because I had failed to notice the potential synergy between "language learning" and "fieldwork", and had categorised them separately.

3.3. Research in language learning

This section contains an annotated bibliography that reviews the applied linguistic literature relating to second language learning theory (§3.3.1). Then §3.3.2 briefly summarises some of the more dated language learning materials that have been developed specifically for linguistic fieldworkers.

3.3.1. Language learning resources that can be adapted for the field

Experienced field linguists who have never formally studied theories of second language learning may nevertheless have figured out for themselves, while undertaking their own research, strategies for self-directed language learning. This may have occurred through a process of trial-and-error or through talking to other linguists about their own learning experiences. Yet, a basic familiarity with the literature on learner variables (personality, learning style, learning strategies, motivation) and learning variables (pronunciation, speaking, listening, reading, writing, vocabulary) would make the process of acquiring these skills a more manageable process, especially for less experienced linguists.

The research cited below is oriented towards the learning of a majority language in a classroom environment. However, the findings can be adapted to the fieldworker's needs. Of course, the discussion that follows is merely the "tip of the iceberg". Much more material can be sourced from useful references such as the *Handbook of Research in Second Language Teaching and Learning* (Hinkel 2005); *Routledge Encyclopedia of Language Teaching and Learning* (Byram 2000); and, practical and learner-centred, *The Learning Strategies Handbook* (Chamot et. al. 1999).

Due to space constraints, individual theories of second language learning (such as the creative construction hypothesis, the input hypothesis, the universal grammar hypothesis, the cognitive skill-learning model, the interaction hypothesis, the output hypothesis, the scaffolding hypothesis, the acculturation model and social identity theory (cf. Littlewood 2004:514-520)) are not considered here. However, such theories are

thought-provoking and inevitably raise the learner's general interest and awareness of the language learning process. The reader is therefore encouraged to follow up on these theoretical models.

Learning styles and personality

Perhaps one of the most intuitively appealing and accessible aspects of second language learning is the discussion on personality and learning styles. Simply by being aware of the various types of cognitive, affective and physiological learning styles (cf. Keefe 1987; Misko 1994; Nel 2008:49-60; Sims & Sims 2006), the learner can self-assess and potentially gain better insight into their own language learning habits and talents.

Using the Myers-Briggs Type Indicator (Myers et. al. 1998), a widely administered "personality test", Ehrman (2008:61-72) studied the effect of personality on language learning. Participants were rated on four scales: (1) extraversion versus introversion; (2) sensing (using the physical senses) versus intuiting (relying on "gut" feelings); (3) thinking (making decisions based on external "facts") versus feeling (making decisions based on personal or social values); (4) judging (wants closure quickly) versus perceiving (wants time to consider the options).

Ehrman examined the personality types of 3,145 learners who had achieved the highest level of proficiency in thirteen different languages native to Europe, Asia and the Middle East. Interestingly, the most well represented personality characteristics amongst the high achievers were: introversion; intuition; thinking; judging.

Many readers may have sat the Myers-Briggs test in school; others may have a good idea of what kind of results they would anticipate for themselves. At any rate, research has demonstrated that the actual process of honest self-reflection, of thinking about how one goes about learning, is an important factor in successful language learning (Anderson 2008:107). The field linguist who is aware of her own learning preferences – and is also aware that there are alternative ways to learn – will be in a better position to plan successful learning strategies. Also, if the linguist is aware that there are different ways to learn, she can attempt to get out of her comfort zone, which can lead to results that she otherwise would not have achieved. For example, if a learner is aware that she is naturally inclined to "perceiving" over "judging" (using Myers-Briggs terminology), she can experiment with the opposite approach.

So the "perceiving" linguist, who is unsure where to write word boundaries and therefore delays entering data for an inordinate amount of time, can consciously resolve to reach some interim decision and get on with the job anyway. In other words, since the linguist is aware of her fallibility, she is in a better position to counteract it.

Learning strategies and learning plans

Related to learning styles are learning strategies. Teachers should opt for explicit instruction of successful learning strategies, according to Chamot (2008:273). This can lead to improvement in reading, writing, listening, speaking, vocabulary, grammar, and pronunciation. Griffiths (2008:90) recommends using language learning games (playing with children), writing letters, keeping a language learning notebook, pre-planning language-learning encounters, not worrying about mistakes (having a "tolerance of ambiguity"; see below), trying to think in the second language, and writing a diary in the target language.

In one study (Snow 2006), students devised a language learning plan. These were experienced and sophisticated language learners (as are most linguistic fieldworkers). Students carried out their learning plans and recorded their progress in a journal. This type of metacognitive reflection was found to be useful in increasing learning effectiveness, allowing students to make more realistic goals, make better decisions on what to focus on, and providing greater awareness of the importance of having a learning strategy.

The linguistic researcher may find it useful to create her own language learning plan which incorporates several strategies. She can then test out the efficacy of her choices in practice and record their observations in a journal. This metacognitive reflection could then channel into a revised learning plan, which would then be instituted and evaluated; and so the cycle continues.

Motivation and self-direction

It can be difficult to keep up motivation in an alien learning environment, far from friends, family, physical comfort, in a completely different culture. Ushioda (2008:26) discusses the importance of motivational self-regulation – motivating oneself over the long-term, once the novelty has worn off. This is particularly relevant to researchers spending weeks or months in the field who, after the initial

euphoria of small successes, may feel discouraged by their subsequent slow rate of progress in language learning. In these circumstances, learners must reflect on the process and consider what practical changes can be made to facilitate learning (Ushioda 2008:28-29). Field linguists must also strive for "positive thinking", especially when the going gets tough: Hamachek (1968:6-7) explains how we meet our own expectations, i.e., if we think we are going to succeed, then this is likely what we will experience; likewise if we fear failure.

Similarly, Dweck & Master (2008:31-33) find that self-theories of intelligence ultimately have an impact upon the effort expended in learning. They propose interesting correlations between a learner's sense of self (or "in/security") and their willingness to expend effort and take risks in learning. Those who feel that their intelligence is immutable are less likely to persist in the face of obstacles; in contrast, those who feel that their intelligence can be improved are more motivated to continue trying, even under more difficult circumstances. Thus, metacognitive awareness and self-directed "mind control" are useful tools in keeping up one's spirits – and progress – when motivation flags.

Goal-setting is also an effective way to maintain motivation. Zimmerman (2008:270) argues that in order to be maximally beneficial to the learner, goals should have certain properties, including: specificity; proximity (short- and longer-term objectives); congruence (lack of conflict) between goals; difficult but achievable goals; and a focus on learning **processes** as a way of improving outcomes.

Being mindful of this, the fieldworker should ensure that she has incorporated both short- and longer-term goals into her learning plan. For example, a short-term goal might be, "I will learn three nursery rhymes by heart" and a longer-term goal would be, "I will converse entirely in the target language (not resorting to the lingua franca for words I don't know) for [X] event types each day" (where the variety of "event types", e.g., making lunch, going to the garden, fetching water, expands over time).

Listening and speaking

Speaking and listening are two sides of the same coin. To master pronunciation we should of course listen to others, but also record our own speech and critically weigh up its strengths and weaknesses (Brown 2008:203). An additional benefit of recorded texts is that they can be played over and over ad nauseum, with no adverse impact

(i.e., boredom!) on the native speaker consultant. Lewis & Hill (1992:64) suggest that in the classroom, language teachers should make the most of recorded texts by having students listen for particular words and phrases, particular grammatical features, and words connected to a particular theme. These suggestions can easily be taken up using a fieldwork recording. In addition, learners could listen for discourse markers, intonation contours, or any other area targeted for learning.

The other advantage of a recording is that it can be played back, phrase by phrase, and repeated. This is extremely useful for giving the learner better insight into pronunciation of individual sounds, coarticulation, stress, intonation, and commonly used phrases. One great advantage to this approach is that the learner can get a feel for the language without being compelled to respond, as with normal speech (Gudschinsky 1967:5-6). In natural interactions with native speakers the learner is more concerned with meaning and does not have the chance to truly focus on the language; recordings can provide this opportunity.

Each daily lesson should incorporate drilling in the sound system, including drilling in contrastive sounds, practice of grammatical patterns, and memorisation of vocabulary within grammatical context. As lessons progress, the old lessons should be reviewed. Nida (1957:79) also advises: "One of the best ways to acquire a number of grammatical frames and to endear oneself to people is to memorize some favourite tales."

Probably one of the biggest listening challenges for descriptive linguists, who are naturally inclined to parse and analyse everything they hear, is to develop what second language learning experts call a "tolerance of ambiguity" (Johnson & Johnson 1999). This means that when the learner cannot understand everything she hears, she must not get "bogged down" in detail, but persevere with listening for the main idea of the text. For linguists that have not already figured this out for themselves, tolerance of ambiguity is a very important lesson that can be taken from applied linguistics.

Reading and writing

Most documentary linguists engage in the transcription and translation of texts as a matter of standard procedure, and thus <u>read</u> these texts in order to carry out linguistic analysis. They therefore understand, at least unconsciously, how useful reading is as

a language learning tool. This is supported by the research (Krashen 1989; Nuttall 1996:128). However, it is also well known that reading facilitates and reinforces writing, and vice-versa (Gordon 2008:248).

Most indigenous languages that linguists preoccupy themselves with are oral, with little or no written tradition; often there is no developed or officially recognised orthography. In turn, linguists tend to regard spoken language as superior to writing in its reflection of the linguistic competence of speakers: speaking occurs within a natural social context, whereas writing is contrived, planned, and edited. This may indeed be the case, but it should not preclude a fieldworker from attempting to write the language. As I myself discovered while in New Guinea (cf. §3.2 above), writing is an excellent tool for learning grammar and should be exploited as a language learning tool. Of course, the fieldworker will need to check their work with a trusted native speaker teacher. This is also an excellent way to give the native speaker more authority and autonomy in the linguist/consultant relationship: rather than merely answering the linguist's questions, the native speaker has the opportunity to actually guide the linguistic discussion.

Vocabulary

The term "vocabulary" may conjure up images of primary school spelling lists, but learning new words is an extremely useful exercise. Obviously, a large lexicon facilitates comprehension and speaking, and forms the basis of any dictionary project. A broad vocabulary also adds value to the linguistic analysis itself; the greater the breadth and depth of semantic domains covered, the more evident becomes any variation on the language's basic structure. Certain structural anomalies may be reserved only for particular semantic domains, and the expansion of one's vocabulary goes hand in hand with such discoveries.

Strategies to facilitate the acquisition and retention of vocabulary include the Keyword method (Burling 1984:15-19), where the learner consciously relates the new word to a word in the learner's first language. Burling, an anthropologist, claims that, silly or trivial as it may seem, this strategy doubled the rate at which he recognised words. Other techniques include classifying vocabulary into semantic categories (Stahl & Stahl 2004:72-73) and playing "twenty questions" to guess a word

(Blachowicz & Fisher 2004:230). (This would involve the cooperation of native speakers, of course.)

Nida (1957:62-63) suggests that the fieldworker elicit 200 practical expressions, check their pronunciation carefully, drill, and use the phrases in real situations. As for the task itself, it is well known that brief, regular revision is much more effective than "cramming" (Nunan 1991:134).

3.3.2. Existing language learning materials developed for fieldworkers

While §3.3.1 reviews some of the current research on second language learning (with an intended audience of academics and students of applied linguistics), what follows hereunder is a compilation of existing practical resources that address self-directed language learning for field linguists, specifically.

There are some noticeable differences between §3.3.1 and this section. Applied linguistic research has been going strong for decades and there is no shortage of up-to-date literature on language learning theory and applications. Hence the publications discussed in §3.3.1 (with a few exceptions) were released within the last ten years or so and have a strong research orientation. In contrast, discussion about the field linguist's role as a language learner has been negligible in recent times; publications that do have this focus tend do pre-date modern language teaching methodologies.

This situation can be partly attributed to the 1950s Chomskyan revolution, after which time empirical research on indigenous languages took a back seat to generative grammar. This is not to say that fieldwork was completely neglected, but it certainly fell out of fashion relative to Chomskyan linguistics. It is only in recent years that fieldwork has picked up more momentum. Yet these days it is probably the case that the matter of language learning is viewed with less urgency than it once was. In the days before cheap flights and mobile phone technology, a linguist going into the field was bound to "stay put" there for quite a while without much inter-

With some notable exceptions: see Longacre (1964); Samarin (1967); Labov (1972); Bouquiaux & Thomas (1976); Comrie & Smith (1977).

action with the outside world. It would also have been less likely that she would have shared a lingua franca with the indigenous community. Nowadays, with more sophisticated transport systems, a linguist can pop in and out of a community in a matter of just a few weeks, and it is probable that at least some of the people living there will speak the majority language or a lingua franca. This reduces the pressure to learn the community's language well, despite the numerous benefits of language learning that have been outlined in this paper.

Consequently, publications devoted to language learning in the field are rather dated, and they propose strategies that are generally out of step with current language teaching and learning methodologies. Nevertheless, they are still full of practical advice, and just because an approach is out of fashion does not necessarily mean that it has no value; field linguists may find some of the suggestions to be helpful. A brief summary of the literature follows.

General language learning guides published in the first half of the 20th century include Sweet (1900), Cummings (1916), Palmer (1917), Bloomfield (1942), and Fries (1945). Ward's Practical Suggestions for the Learning of an African Language in the Field (1937), Harris & Voegelin's article on elicitation (1953), and Lounsbury's chapter on field methods (1953) focus specifically on the needs of field linguists. Nida (1957) exhorts missionaries to learn the local community language; some of his suggested language learning strategies still have relevance today. Ten years on, How to Learn an Unwritten Language was published by Gudschinsky (1967). Although dated, this is a useful introduction to linguistic fieldwork and language learning, and is small enough to fit into a fieldworker's luggage. It offers many practical exercises, mostly involving drilling. Anthropologist Robbins Burling's small, practical guide to language learning (1984) presents useful strategies for increasing comprehension and production. Healey's Language Learner's Field Guide (1975) is full of useful advice, including progress charts and a day-by-day guide to language learning. Brewster & Brewster's (1976) Language Acquisition Made Practical includes a "Daily Learning Cycle" program (pp. 10-109), a list of learning topics (although strangely city-centric), and strategies for improving listening comprehension and pronunciation.

4. Literacy development

Section 4.1 discusses the advantages of community literacy development for the host community and the linguist, alike. A literacy development "mixed success" case study is related in §4.2; then §4.3 surveys some of the literature on literacy development.

4.1. The importance of literacy development in the field

The advantages of language learning, which are both linguistic and social, also feed into community literacy initiatives. Community literacy may be a pedagogical concern, removed from the mainstream objective of academic research, but it has nevertheless become part and parcel of a field linguist's job description. Epps & Ladley (2009:645) note "[...] academic linguistics has only recently begun to adopt the position that it is irresponsible to single-mindedly address scientific goals to the exclusion of humanitarian ones." As a discipline, our collective silence about literacy issues is slowly giving way to public discourse (Dobrin & Good 2009; Epps & Ladley 2009).

The advantages of mother tongue literacy development (so long as the community desires this) are numerous. Many studies have demonstrated the superiority of acquiring literacy in one's home language (cf. Elley 1994; Carlisle & Beeman 2000, among many others). In addition to the cognitive and pedagogical advantages, many psychological and social benefits are associated with vernacular education; students' motivation and self-esteem are enhanced, while local community practices are recognised and valued (Ouane & Glanz 2005).

Literacy materials in the mother tongue are generally highly sought after by small linguistic communities. Communities also place a high value on dictionaries, story books, picture books, and other materials, including digitally recorded documentation of the community's cultural identity. Since communities do us a great service by allowing us to live among them and study their language so as to pursue our own academic agenda, the least we can do is use our expertise to return the favour in kind.

The advantages of community literacy development are not all one-sided; a linguist's involvement in such a program can potentially enhance her own research by virtue of

the fact that she is approaching the language from a different angle; this perspective may offer new and previously inaccessible insights into a linguistic problem.

4.2. Case study: Linguistic fieldworker as literacy guide

In my own experience of working in Papua New Guinea and Vanuatu, I have found that local communities are very enthusiastic about developing mother tongue literacy materials. The national governments of both countries offer in-principle support for indigenous literacy programs; however, material and technical expertise is in short supply. This means that local school teachers and community leaders are left with the responsibility of compiling vernacular literacy materials for themselves. This raises some pedagogical questions: in what order should the vowels and consonants of the language be introduced? How should syllables, onsets and codas be introduced? What types of exercises and games would be helpful in becoming literate? Naturally, linguistic researchers are approached for assistance – the closest most communities can hope to get to an educational expert.

The Qairaq community of Papua New Guinea, particularly the school teachers, wanted to develop an agreed-upon alphabet for their language, and over the course of a two day workshop, this is what we accomplished. Once an orthography was established, their next request was for strategies to teach reading and writing in Qairaq. Having previously taught English literacy, I happened to have a few tricks up my sleeve. However, my ideas were essentially pulled out of the top of my head, as to date I had not studied literacy and pedagogical materials development in any methodical or disciplined way. Therefore the unsystematic nature of my resulting contribution was certainly not optimal.

The Qairaqs are not unique; many indigenous communities (with some exceptions) value mother tongue literacy and wish to develop not only an orthography, but a well-designed literacy program. Of all the types of researchers that may visit a community (anthropologist, biologist, archaeologist, etc.), literacy development falls most logically within the linguist's domain. As a profession, we therefore need to give more attention to this matter than we currently do.

4.3. Research in literacy development

Section 4.3.1 summarises some of the literature on literacy theory and practice. Then §4.3.2 briefly looks at some of the existing resources that focus specifically on minority language development. The literature is vast and expanding rapidly in both areas, but the references mentioned below at least provide a starting point for further investigation.

4.3.1. Publications on literacy theory and practice

There are a number of articles and handbooks of literacy research that provide an excellent overview of the field of literacy. A good starting point is Williams (2004), who surveys literacy studies as it relates to the larger field of applied linguistics. He includes approaches to reading and writing, then moves on to more specifically review models of literacy, making the broad distinction between "autonomous literacy" (literacy as a skill set) and "ideological literacy" (literacy as a social practice). In this section we will focus primarily on publications that deal with the former.

Reading Instruction that Works, by Michael Pressley (2002), is an impressive but accessible compendium of reading research and its relationship to effective literacy instruction. Pressley does an excellent job of relating theory to practice. Among other topics, he comprehensively reviews the "phonics" and "whole word" approaches to teaching reading, word recognition, comprehension, and motivation.

There are a number of edited volumes that survey the field from a variety of perspectives. Robinson et al. (2000) examine some of the significant issues in literacy education. This non-introductory text offers an excellent range of very interesting topics including balanced literacy instruction, phonics, arguments for and against the use of prepared literacy materials, spelling, emergent literacy, content literacy, and writing. The *Handbook of Early Literacy Research* (Neuman & Dickinson 2002) is similarly ambitious, with a total of thirty articles that cover early literacy development, home and community influences, preschool, instructional materials and classroom practices, and special intervention efforts. Barratt-Pugh & Rohl (2000) focus on family literacy practices, how these relate to formal education, and what schools can do to build on this early knowledge.

The New South Wales Department of Education and Training, Curriculum K-12 Directorate (2009) has produced literacy benchmarks such as *A Continuum of the*

Critical Aspects of Early Literacy Development, which provides guidance in measuring learner progress in reading, comprehension, writing, speaking, printing, phonics, phonemic awareness, and vocabulary. The New South Wales Department of Education and Training, Curriculum Support Directorate, also has policy guidelines for the teaching and assessment of writing (2007a) and reading (2007b). The information is general and requires supplementation, but gives a good overview of literacy teaching.

Perez (2008) provides a brief theoretical explanation on the importance of phonemic awareness in reading; the rest of this slim volume is packed full of useful phonemic awareness tasks; current instructional methods, and practice and reinforcement activities. According to Perez (2008:17), there are seven broad areas of phonemic awareness that are learned through rhyming, alliteration, blending, segmentation, manipulation, isolation and matching. The appendices contain English data to support these tasks. Of course, English is not useful for a mother tongue literacy class, but it can be adapted to meet the needs of the local language community.

Similarly, the practical activities suggested in *How to Increase Phonemic Awareness in the Classroom* (Settlow & Jacovino 2004) can also be adapted to the local community context. There are exercises geared towards listening awareness, rhyme and alliteration, beginning and ending sounds, blending and segmentation, phoneme manipulation, and breaking sentences down into component words.

4.3.2. Publications on literacy development for minority languages

Publications on literacy development for minority languages can be divided into to main areas: those developed by SIL for use by its missionaries, and those published by academics.

Gudschinsky's classic, *A Manual of Literacy for Preliterate Peoples* (1973), has now been uploaded to the online LinguaLinks website of SIL International (previously known as "SIL"). In addition, Stringer (1985, 1987, 1988, 2006) and Stringer & Faraclas (1987), also affiliated with SIL, developed the "Multi-Strategy" literacy method in the late 1980s as an alternative to the "Gudschinsky model".

Many, if not most of the recent publications by SIL are available online. Its LinguaLinks Library, published on CD-ROM, offers a wealth of practical information

on literacy development. A digital publication by Waters (1998) details how to develop instructional methods and materials in reading, writing and basic math, and how to plan and organise a literacy program. These materials are designed for use by SIL missionaries who live in indigenous communities, often for years at a time, under the auspices of SIL. It is not always clear what the authors' qualifications are for writing these online guides; therefore they should be approached with a certain amount of critical thinking (as should any publication, really).

Academic publications include Grenoble & Whaley's (2006) Saving Languages. This book contains a chapter on literacy that explores some of the models of literacy, examines literacy in terms of language revitalisation, and outlines the basic steps of initiating a literacy program. The chapter on orthography discusses the linguistic, cognitive, and social considerations involved in developing a writing system, as well as a section on standardisation. There is also a chapter that considers some of the many issues that may arise when creating an indigenous language program.

The Green Book of Language Revitalization in Practice, edited by Hinton & Hale (2001), is a collection of articles that looks at the different aspects of language revitalisation, including case studies of the revitalisation efforts of various linguistic communities (many from North America but also from other places), language maintenance and revitalisation, teaching methodologies, literacy, and teacher training.

The Foundation for Endangered Languages publishes proceedings from its annual conferences; three are of particular interest here: *Endangered Languages and Education* (Ostler 1999); *Endangered Languages and Literacy* (Ostler & Rudes 2000); and *Endangered Languages and Language Learning* (de Graaf et al. 2008). These thee volumes contain an assortment of articles – short case studies from around the world concerned with minority language instruction – which will be useful for the field linguist interested in community literacy and education.

The annual "Stabilizing Indigenous Languages" symposia (held annually from 1994 to the present in various locations around North America) have produced a series of publications and online proceedings about the maintenance of Native American and other indigenous languages, and concomitant issues (Northwest Indian Language Institute 2010).

5. Conclusion

Clearly, academic fieldworkers need to place a high priority on thorough linguistic analysis and documentation. However, there is also a growing consensus that the more social aspects of our work deserve more attention. Fieldworkers and their host communities alike stand to benefit when the former are actively engaged in language learning and literacy development. For this reason, field linguists would do well to become more familiar with the published literature in these areas. In turn, fieldworkers' self-directed learning experiences are unique and can offer a different perspective to the current body of literature on language learning. For similar reasons, field linguists also have much to contribute to the research in literacy development and education.

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