Overview: A rationale for needs analysis and needs analysis research

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In an era of shrinking resources, there are growing demands for accountability in public life, including education. In foreign and second language teaching, one of several consequences is the increasing importance attached to careful studies of learner needs as a prerequisite for effective course design.

Successful language learning is vital for refugees, immigrants, international students, those receiving education or vocational training through the medium of a second language in their own country, and individuals in occupations requiring advanced foreign language proficiency, among others. The combination of target language varieties, skills, lexicons, genres, registers, etc., that each of these and other groups needs varies greatly, however, meaning that language teaching using generic programs and materials, not designed with particular groups in mind, will be inefficient, at the very least, and in all probability, grossly inadequate. Just as no medical intervention would be prescribed before a thorough diagnosis of what ails the patient, so no language teaching program should be designed without a thorough needs analysis. Every language course should be considered a course for specific purposes, varying only (and considerably, to be sure) in the precision with which learner needs can be specified – from little or none in the case of programs for most young children to minute detail in the case of occupationally-, academically-, or vocationally-oriented programs for most adults.

A one-size-fits-all approach has long been discredited by research findings on the *specificity* of the tasks, genres and discourse practices that language learners encounter in the varied domains in which they must operate.[1] It is not simply that the *language* and *skills* required to function successfully, and the *texts* encountered, vary greatly for an overseas college student within discipline A, B or C, for a foreign tourist, for an immigrant construction worker, jeweler, hospital porter, union organizer, nurse, or emergency room physician, or for an illiterate newly-arrived refugee struggling with social survival

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tasks (opening a bank account, renting an apartment, gaining permission for a child to start school, etc.) during the first months in an alien culture. The variation in language, skills and texts reflects underlying differences in the *roles* such individuals occupy, and in the *beliefs*, *practices*, *ways of speaking*, and *cultures* of the often overlapping *discourse communities* of which they seek to become members. As a recent discussion of discourse communities in academic disciplines concluded:

> Communities ... differ from one another along both social and cognitive dimensions, offering contrasts not just in their fields of knowledge, but also in their ways of talking, their argument structures, aims, social behaviors, power relations, and political interests.   (Hyland & Hamp-Lyons, 2002, p. 6)

Given such a broad range of phenomena, an ability to perform linguistic analyses of texts (telephone conversations, service encounters, academic lectures, scientific journal articles, office e-mail messages, purchase orders, driver's license application forms, etc.), even when an analysis is computer-assisted, will alone clearly be insufficient. Language teachers and applied linguists need to be familiar with the history of needs analysis (see, e.g., Swales, 1985, 2001; West, 1994) to avoid repeating mistakes of the past and reinventing the wheel. They also need familiarity with the wide array of sources and methods available to them today, and with appropriate combinations thereof, i.e., with source x method interactions.

Unfortunately, while books and journals are replete with reports of NAs (needs analyses) each year, with very few exceptions (see Van Els & Oud-de-Glas, 1983; Van Hest & Oud-de-Glas, 1990) relatively little attention is paid to needs analysis itself. In some respects, the NA literature is reminiscent of writing on language pedagogy 20 years ago, when authors wrote data-free books and journal articles recounting their alleged success at teaching this or that structure or skill, while offering no evidence that what they described had worked at all or worked better than alternative 'methods'. There is an urgent need for a serious research program (as distinct from one-off studies) focused on methodological options in NA itself. Hence, *methodological issues* in NA constitute a major focus of this volume, and contributors include explicit discussion of their very varied methodologies in their chapters.

The increasing importance attached to professionally-conducted NAs comes at a time when the theory and practice of NA itself, and of language teaching in general, are in flux, as educators respond to theory change and research findings in SLA and L2 syllabus design.

To illustrate, for some 30 years now, researchers have repeatedly shown that learners do not acquire a new language one structure at a time (nor could, since so many structures are inter-dependent). Nor do they acquire in the theoretically and empirically unmotivated structural or notional-functional sequences found in linguistically-based syllabuses and textbooks. This is true even when teachers and textbook writers attempt to teach them that way (see, e.g., Ellis, 1989; Hyltenstam, 1977; Lightbown, 1983; Pienemann, 1984). Learners are far more active and cognitively-independent participants in the acquisition process than is assumed by the erroneous belief that what you teach is what they learn, and when you teach it is when they learn it.

Nor do learners move from a state of zero knowledge of a structure to native-like mastery in one step, as is assumed possible by the many superficially different language teaching 'methods' – from ALM to Silent Way – that demand immediate forced production of the structure of the day to native-like accuracy levels, with 'error correction' prescribed when things go wrong. In reality, sudden categorical learning appears to be very rare, even in cases where theorists sometimes claim it does occur, e.g., (putative) parameter-resetting (see Hilles, 1986). Rather, language learning both inside and outside classrooms is a gradual, cumulative, often non-linear process. It involves zig-zag developmental paths, U-shaped behavior, passage through fixed developmental sequences in such areas as negation, interrogatives and relative clauses, plateaus, restructuring, lengthy periods when non-target forms and constructions are the norm, fluctuations in error rate, and only gradually improving accuracy (see, e.g., Huebner, 1983; Kellerman, 1985; Long, 1990, 2003; McLaughlin, 1990; Perkins, Brutten, & Gass, 1996; Pica, 1983; Pishwa, 1993; Sato, 1988, 1990; Shirai, 1990; Stauble, 1984; Zobl, 1982, 1984).

These and many other SLA research findings cast doubt on the validity of synthetic, especially grammatical, syllabuses, and have been partially responsible for the miscellany of syllabus types – lexical, structural, notional-functional, relational, topical, proce-dural, process, content, and task, plus hybrids – now on the table in applied linguistics (see, e.g., Long & Crookes, 1992; Robinson, 1995, 1998). The findings also delegitimize related synthetic 'focus on forms' language teaching methodology.[2] Equally, if structures or other linguistic elements (notions, functions, lexical items, etc.) are not to be the units of analysis in a syllabus, it throws into question the relevance of continuing to conduct needs analyses – the output of which will be the input to syllabus design – in terms of the structures

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or other linguistic forms most likely to be encountered in the domains of interest to a particular learner group. Structurally based NAs, even good ones (see, e.g., Cameron, 1998), tend to produce lists of forms similar to, but far less detailed than, the table of contents of most commercially-published pedagogic grammars, leading one to question their value. That sort of information may still be useful, but it will not be the most important information and, unattached to functional data (see, e.g., Cathcart, 1989) and/or cross-referenced to some other non-linguistic unit of analysis, it will often be meaningless.

Adding independent, converging motivation for a shift towards analytic, e.g., task-based, syllabuses of some kind, a variety of studies have suggested that it is often not lack of linguistic competence *per se* that renders learners unable to perform adequately at work or on an overseas university course. To cite just one of many such examples in the literature, an Australian duty-free store salesman studied by Marriot & Yamada (1991; see, also, Marriot, 1991) knew sufficient specialized Japanese lexical items relevant for selling opals to tourists, but missed sales opportunities for lack of awareness of cross-cultural pragmatic differences in making a sale. Rather, it is learners' inability to accomplish the *tasks* required of them, for which language use is often highly differentiated and both field- and context-specific, and for which much more than L2 linguistic knowledge is needed (see, e.g., Arden-Close, 1993; Bosher & Smalkoski, 2002; Jacobson, 1986; Jacoby, 1999; Jacoby & McNamara, 1999; Marriot, 1991; Medway & Andrews, 1992; Miller-Retwaiut, 1994; Mohan & Smith, 1992; Selinker, 1979). Hence, many modern NAs, including several reported in this volume, use *task* as the unit of analysis, with analysts (and sometimes the students themselves) out in the field collecting samples of the *discourse* typically involved in performance of target tasks relevant for the communicative needs of particular groups of learners.

There is more than one way to conduct a NA, however, just as there is more than one way to teach a language. Not all the studies reported in this volume share the same psycholinguistic underpinnings. By design, they illustrate a wide variety of task-based and non-task-based methodologies. It would be unnecessarily limiting, unreflective of the current state of the art, and a disservice to the reader to present multiple examples of just one approach, whatever the editor's personal preferences and beliefs. Readers sufficiently interested in the issues to work through a book like this will certainly be capable of forming their own judgments as to the relative merits of the different approaches.

Modern needs analysts owe a considerable debt to the pioneers in this important sub-field of applied linguistics, many of them still active: Jordan, Mackay, Mountford, Munby, Strevens, Swales, Trim, Van Eck, Van Els, Van Hest, Oud-de-Glas, Johns, Hutchison, Waters, Richterich, Chancerel, Jupp, Hodlin, Selinker, Candlin, Trimble, Brindley, Hyland, Flowerdew, and Dudley-Evans, among others, and to those associated with such early publications as *ESPMENA Bulletin*, *Lenguas Para Objectivos Específicos, English for Specific Purposes*, and the more recent *English for Academic Purposes*. They have laid the foundations in the form of conceptual ground-clearing, concrete examples of needs analyses, and insights into the complexities of domain-specific language use. What is needed now is a serious effort by applied linguists to identify generalizations that can be made about how best to conduct needs analyses for populations A or B, in sectors C or D, given constraints E or F. However detailed and insightful they may be, particular findings about the language, genres, tasks, etc., encountered in this or that domain are often only of use to others with the same or similar students. Of greater relevance to a far wider audience are the methodological lessons arising from such studies, and especially, research on the methodology of needs analysis itself. Yet such work is scarce. A principal aim of this volume is to indicate by example the potential scope of a needs analysis research program.

In the opening chapter, 'Methodological issues in learner needs analysis', I provide a summary and evaluation of various *sources* of information for a NA (published and unpublished literature, the learners, applied linguists, domain experts, triangulated sources); *methods* of obtaining that information (expert and non-expert intuitions, interviews, questionnaire surveys, language audits, participant and non-participant observation, ethnographic methods, journals and logs, language proficiency and competency measures); and *source x method combinations*. The three areas are considered with respect to the potential of different options for obtaining reliable, valid, and usable data about the *language* and *tasks* required for successful performance within a target academic, occupational, vocational, or other discourse domain. The review is based on a survey of literature in applied linguistics and social science research methods, supplemented by findings from a data-based study of methodological issues in a task-based NA of airline flight attendants. Several sources, methods, and source x method interactions, as well as the reliability of insiders and outsiders in NAs, were the primary foci of the flight attendant study. More case studies are needed to test the generalizability of the study's methodological findings to less

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neatly circumscribed, less public occupations than that of flight attendant, and to other sectors altogether.

Most contributors to this book, and most NAs, are concerned with needs specification at the level of individuals or, more often, learner types. In an era of globalization and shrinking resources, however, language audits and NAs for whole societies are likely to become increasingly important. Good (or bad) NAs at this level can greatly affect federal, state, or local government language policies, with far-reaching consequences for millions of people for years to come. The broad scope of such analyses presents peculiar methodological difficulties, with scientific sampling being especially important, and relatively large sample size making (telephone or written) questionnaire surveys and studies of government publications and other written documents likely to figure among the favored methods and sources. Furthermore, since primary audiences for findings from NAs in the public sector include politicians, economists, bureaucrats, and others seldom known for their understanding of the role of language in society, findings and rationales for recommendations need to be explicit, empirically-supported and expressed using concepts and terminology familiar to them.

Such was the case in two ground-breaking studies reported in the chapter by Richard Brecht and William Rivers. In what is a potentially precedent-setting innovation in foreign language needs analysis, Brecht and Rivers adopt an economic approach to analyzing the language 'market' in the USA, operationalizing 'supply' and 'demand' at the tactical level, and 'capacity' and 'needs' at the strategic level. This and an accompanying cost-benefit analysis allow them to distinguish 'private marginal value' – what an individual considers when deciding to learn or maintain skills in a language, and 'social marginal value' – the *societal need* for that language. They apply the model to two quite different cases: (i) language needs for US national security, and (ii) the accessibility of social services to speakers of languages other than English (LOTE) in the US state of Maryland. It is safe to predict that both studies will serve as models for work of this kind in many countries for years to come.

A second chapter dealing with NA in the public sector involves one of the largest foreign language teaching operations in the world, the Defense Language Institute (DLI) in Monterey, California. With some 800 faculty members providing instruction in 22 languages to 3,300 students for six hours each day – both staff and students funded by the US government, and ultimately by the American tax-payer, to the tune of tens of millions of dollars per year – it is vital to know that what is taught will satisfy the future communicative needs

both of the students themselves and their sponsoring agencies. Not surprisingly, therefore, needs analysis at DLI is accorded considerable importance. The Director of its Research and Analysis Division, John Lett, reports three recent NAs conducted at DLI. Sources were domain experts familiar with students' future work, and experts in language proficiency assessment, using the ILR (Interagency Language Roundtable) scale; methods utilized included document analysis, retrospection, and unstructured interviews. After joint group discussions among the subject matter and testing experts, tasks were rated for frequency and criticality, and in some cases classified in various ways. They were then assigned a consensus language proficiency rating in each skill modality, taking into consideration the typical conditions under which those tasks are carried out and the standards of performance required. Subsequent reviews of the tasks and ratings often produce recommendations for policy makers as to the global language requirements for various military careers.

Having described the NAs themselves, Lett moves on to discuss several important reliability and validity issues that should be of concern to needs analysts everywhere, but which have very rarely been discussed in the NA literature. These include the use of convenience samples of subject matter experts, the lack of ready external criteria for assessing the validity of analyses, the lack of independence of proficiency level ratings obtained via the collaborative group process, possible response bias, and the halo effect. He identifies potential solutions to several of the problems, e.g., stratified random sampling, use of surrogate or partial test-retest and modified split-half procedures for improving reliability, and relating DLI graduates' language proficiency ratings to supervisors' field reports on their subsequent job performance in predictive validity studies. He points out, however, that the increased costs in time and personnel, among other problems, would often render them inadequate, or in some cases preclude their adoption altogether.

The next four contributions deal with NA in the occupational sector. In one of the few NAs to date to employ multiple sources and methods – and one of the very few to utilize participant observation, in the form of on-the-job training, to do the work being studied – Rebeca Jasso-Aguilar reports a study she conducted of the target tasks and language needs of maids ("housekeepers") in a large Waikiki hotel, part of a chain employing approximately 1000 maids. They are typically female, low income immigrants (or in some parts of the US, often illegal aliens). Participant observation (with tape-recording and note-taking), unstructured interviews and questionnaires were the methods Jasso-Aguilar used. Sources included three

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hotel maids, various supervisors, the executive housekeeper, a human
resources staff member, daily shift briefings for the maids, and work-
related documents, such as job descriptions. Methods and sources
were triangulated to help guage reliability, and considerable dis-
parities emerging between what supervisors confidently believed the
maids' work to involve and what it actually involved. Jasso-Aguilar
concludes with a critique of the unbalanced distribution of power in
such settings, and a call for researchers to adopt a more critical
perspective in NA – one which allows for the inclusion of a wider
range of participants' voices and assessment of their needs beyond
the workplace.

Working in a very different social and cultural setting, Sonja
Vandermeeren begins with a brief introduction to problems in
identifying objective, subjective, unconscious, subjective unmet, and
objective unmet foreign language needs in the business world. Some
useful sources are described, including business clients who are native
speakers of the foreign language concerned (in this case, German),
along with some methods for accessing their expertise. In one of the
non-task-based NAs described in the book, Vandermeeren then
reports results from two questionnaire surveys she conducted of the
quantitative and qualitative language needs of 112 Finnish companies
wishing to sell their products in German markets. Among other
interesting findings was the existence of unmet needs for German of
which many companies were unaware, but which Vandermeeren's
methodology revealed. Also of note, and reminiscent of Marriot &
Yamada's findings, was the relatively greater importance attributed
by German clients to the Finns' knowledge of German business
culture and practices than to their knowledge of the German (or
English) language itself. Vandermeeren underscores the importance
of NA not only for foreign language teachers, but for those who train
them. She notes an innovative course in international business
writing that has students conduct field research on foreign language
needs as one of three tools used to develop the required cultural
knowledge.

In another European study, this time of the English language needs
of Catalan journalists operating in nine sub-domains of their profes-
sion, Roger Gilabert begins by drawing a useful, operationalizable
distinction between target tasks and target sub-tasks. He then
proceeds to demonstrate, first, that some sources and methods were
more revealing than others in absolute terms. Second, he shows how
triangulation by sources (scholars, company representatives, domain
experts, and documents) and methods (unstructured and structured
interviews, introspections, non-participant observation, and ques-

tionnaires) can improve the reliability and validity of NA findings in
general. In the journalism study, the triangulation was supplemented
by further non-participant observation of specific target tasks, which
turned out to be especially useful, and by the collection of additional
discourse samples. Gilabert also identifies some source x method
interactions in his study, e.g., the greater productivity of insider
introspections with domain experts than with company representa-
tives. He offers useful suggestions concerning the relatively greater
value of (i) responses to questionnaire items that probe judgments of
frequency and perceived need, compared with harder-to-define 'diffi-
culty,' and (ii) analysis of target discourse (in this case, e-mail
messages) over self-report data by their sender.

In the fourth and final chapter on occupational needs, Eric Keller-
man, Hella Koonen and Monique van der Haagen report an inter-
esting study of a topic that has rarely, if ever, featured in applied
linguistics, the language needs of professional footballers. With the
internationalization of many professional sports, the communicative
needs of professional athletes is a topic likely to grow in importance.
In another non-task-based study, Kellerman et al employed multiple
methods and sources: a telephone questionnaire (a form of interview
schedule) with Dutch soccer club managements; a written question-
naire in both English and Dutch for foreign players; and unstructured
interviews with two teachers of Dutch attached to top professional
clubs in Holland, a club press officer, and two well-known coaches,
including Arsene Wenger, the world-famous French manager of 2002
English Premiership champions, Arsenal. The sometimes strikingly
different findings for English and Dutch as target languages, for
players from different L1 and cultural backgrounds, and between
language policies at Dutch and English clubs, underscore the impor-
tance of sampling in all NA studies. The study also illustrates how
important personal insider contacts can be for what ethnographers
(and perhaps security personnel at some clubs) refer to as 'gaining
entry to the field.'

In a lengthy report on NA in an academic setting, focusing on
foreign language learners, Craig Chaudron et al describe a NA
conducted in the University of Hawai'i's Korean as a foreign
language (KFL) program as part of the first stage of a federally
funded three-year pilot study of Task-Based Language Teaching for
Korean. The NA began with unstructured interviews of a stratified
random sample of students enrolled in KFL classes, followed by a
survey of the entire population using a questionnaire based upon the
interview findings. The study shows how even students in what
foreign language teachers often assume to be homogenous groups,

and/or groups having no real need for a language beyond satisfying a college language requirement, in reality often do have definable, and varied, present or future communicative needs – needs that will often not be adequately met through use of a one-size-fits-all curriculum and set of teaching materials. Then, in a foretaste of work reported in the book's final section, the second half of the paper describes procedures employed by the University of Hawai'i team for collection and analysis of target discourse samples surrounding performance of two elementary-level 'social survival' target tasks for visitors to Korea. The final part of the paper describes how results of the analysis of target discourse were combined with SLA theory and research findings to motivate the design of two modules of prototype task-based teaching materials, each consisting of seven pedagogic tasks, the last also serving as an exit test, for classroom use in Korean courses.

The fifth and final section comprises three chapters, two from the USA and one from New Zealand, which focus on the collection and analysis of samples of language use in target discourse domains. After target tasks for a particular group of learners have been identified, the second stage of a thorough task-based NA involves collection and analysis of authentic samples of discourse surrounding accomplishment of those tasks. The first step, data-collection, is rarely without problems. For instance, quite apart from the usual technical difficulties surrounding audio or video recordings in the field, discourse samples may be lacking in the immediate environment of the language teaching institution, as is often the case when listening or speaking materials are required for foreign language learners headed for a second language environment. On other occasions, there may be difficulty in gaining access to sensitive service encounters, especially those involving confidentiality.

An example of the latter type, the US naturalization interview, was the focus of the study by Michelle Winn. Winn provides a detailed description of what was involved in her 'gaining entry to the field,' and identifies nine factors that facilitated the success of this and other aspects of her work. These included use of an inside connection, positioning herself as a learner rather than as an expert or evaluator, and use of immediate 'debriefing' interviews with INS (Immigration and Naturalization Service) interviewers. Winn finishes by showing how tasks and sub-tasks identified from the discourse analysis can be translated into task-based pedagogic materials and classroom activities.

Nicola Downey Bartlett reports a detailed study of what might at first seem an easy-enough task in a fairly straightforward service