Towards a Multidimensional Framework for a large-scale Needs Analysis: A Pedagogical Perspective

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Abstract
To expand the scope of language needs analysis, the present study developed a proposal for large scale framework of needs analysis for analyzing national language needs of pre-university level EFL learners. Using a multidimensional model of needs analysis, it addressed the language use context, the English language instruction context, the learners’ motivation and goal context, and Means Analysis context to investigate the English language learning needs of the Omani grade 11 students. This study also considered triangulation of data collection techniques and source of information crucial factors in needs analysis.

Keywords: needs analysis; multidimensional needs analysis; large scale needs analysis
Introduction

Most NAs are concerned with needs specification at the level of individuals or, most often, learner type (Long, 2005). Although analyzing learners’ needs is theoretically of primary importance in the current English Language teaching approaches, NA is rarely carried out in a societal or nationwide context. Recent researchers of NA, such as Coleman (1998), Long (2005), Brecht and Rivers (2005) and Cowling (2007), stress the notion of generalization of the NA findings in the societal level. What is needed now is a serious effort by applied linguists to identify generalization that can be made about how best we can teach English. Long (2005) points out that, “in an era of globalization and shrinking resources, however, language audits and needs analyses for whole societies are likely to become interestingly important (p.6 ).” At the societal level, the needs for language are generally defined within very general social goals such as national security, social justice or the like (Brecht & Rivers, 2005). The rationale behind associating language with societal goal is to motivate policy and planning for language education at the national level.

Adapting such broad analysis confronts the analyst with some constraints, including the appropriate needs analysis approach, large sample size and the preference of certain methods such as questionnaires, surveys, studies of government publication or documents, and so forth. Furthermore, findings and rationale for recommendation need to be explicit, empirically-supported (Waters & Vilches, 2001) and expressed in familiar terms since the primary audiences for findings from the public sector NAs include politicians, economists and other stakeholders. This study contributes to the existing NA literature by expanding its focus to nationwide NA which account for all different facets of needs in order to have a holistic and conclusive impression about the learners’ linguistic needs. It is therefore proposing a multidimensional framework of NA that triangulate different facets or approaches of needs as well as resources and methods for laying out --to the best extent possible- the analysis of the EFL students’ learning needs in a nationwide context.

Literature review

Needs analysis is a familiar concept in English language teaching ELT, teaching English as a second / foreign language TESL/TEFL. The term “Needs Analysis” first appeared in India in 1920s, but it was established formally during 1970s by the Council of Europe in the field of ESP (Brindley, 1984; White, 1988; Richards, 2001). There have been many surveys of approaches to needs analysis teaching (West, 1994). Communicative language theories have demonstrated that learners’ needs should no longer be defined in purely linguistic terms. Because of its wide nature, defining NA is a challenging task. In the language needs literature, needs are often defined in terms of dichotomies (Krohn, 2008; Oanh, 2007). Widowson (1983) provided a distinction between goal oriented versus process oriented needs. This dichotomy reviewed needs as an ends means. Hutchinson and Waters (1987) conceptualized goal-oriented needs as language use needs and process-oriented needs as learning needs (Krohn, 2008). They used the term “target needs” to refer to the “language use needs” and categorized them in to three sub categories, namely necessities, lacks and wants. Necessities are what the learner has to know in order to function effectively in the target situation (Hutchinson & Waters, 1978, p. 54). Lacks are
the gap between what is required in the target situation and the existing proficiency of the learner. Wants are seen as what the learner wants or feels is needed. With regard to learning strategies approach, two types of needs are identified; the learner’s preferred strategies for progressing from where they are to where they want to go and the teacher’s strategies to help the learners meet their needs.

Ritchtrich (1975) points out that the learning process by being responsive to learners’ expressed needs becomes a source of its own change. He distinguished between “Objectives” and “Subjective” needs. This dichotomy was adopted by many needs analysts such as, Numon (1988), Brindley (1989) and Brown (1994). Objective needs analysis aimed at collecting factual information for setting broad goals related to language content, whereas subjective needs analysis aimed at gathering information about learners, which can be used to guide the learning process once it is underway (Fatihi, 2003). Berwich (1989) similarly categorized needs according to their provenance, contrasting felt (subjective) needs and perceived (objective) needs. He defines needs as “a gap or measurable discrepancy between a current state of affairs and a desired future state”. Felt needs refer to the “wants” or “desires”, which are derived from insiders and the “perceived needs”, are derived from outsiders, from facts, from what is known and can be “verified”. Another dimension to view NA is “situation analysis” (Brown, 1995; Richards, 2001) or “means analysis” (Holliday, 1991, 1992; Jordan, 1997). They researched the “internal constrains” and investigated the related cultures or environments such as classroom, policies, requirements, resources, Ministry of Education, and so forth.

NA, as can be seen, can be interpreted from different dimensions based on the approach or the framework in question. In my opinion, linguistic analysis or the linguistic domain in NA is the most distinctive feature of all language analysis schools such as Systematic Functional Linguistics, Exchange Structure Analysis, Genre Analysis Approach, and Critical Discourse Analysis. This conclusion is also supported by many recent researchers such as Coffin (2001), Long (2005), Al-Busaidi (2004), Shuja’a (2004) and Krohn (2008). However, linguistic analysis is still a relevant aspect of NA researches. A good NA framework cannot ignore the relative importance of other NA dimensions such as the learner dimension, the means dimension, the present situation dimension, the target language use dimension, and the context dimension.

Most of the recent NA studies are at the level of a program or a course. It was noticed that little attention is directed to pre-university learners or learners of a whole nation. Therefore, most of the recent NA findings are applicable only to their context or similar context. No generalization can be made about how best we can teach English to a certain society. The target populations of many NA studies are in the level of undergraduate students, for example, Patterson (2001), Al-Busaidi (2003) and Shuja’a (2004) studied university students’ language needs, whereas Al-Dugaily (1999) and Al-Husseini (2004) investigated the linguistic needs in college level students.

As to methodology, two observations can be made in relation to NA procedures. All studies used English students and English teachers as the main sources of information. This complements with current and previous studies finding, that learners and teachers have special right to, when it comes to deciding the content of the course they are to undergo (Brecht & Rivers, 2005; Hutchinson & Waters 1987; Holliday 1992, 1994; Long, 2005; Nunan, 2001).This conclusion is logical because it raises the level of awareness of both parties as to why they are doing what they are doing and leads them to reflect usefully on means and ends. It is also important to note, that, even when learners and teachers are able to provide useful and reliable insight about present or future needs, better and more readily accessible sources may be available.
including experienced language supervisors, graduates of the program concerned, employers, administrators, and so forth. The second observation, in relation to the methodological aspect, is that questionnaires and interviews are the most dominant tools used in all studies. Al-Dugily (1999) used them as the only tools for data collection in his study. It is commonly noticed that many of NA studies in teaching English as a second language (TESL) researches are carried out via semi-structural interviews, or more commonly questionnaires, for instance, Aguilar (2005), Choo (1999), Abdul Aziz (2004), Keen (2006), Davies (2006), Vadirelu (2007), Taillefer (2007), Cowling (2007) Cid, Granena, and Traght (2009) and Spada, Barkoui, Peters, So, and Valeo (2009). Yet, they are not the only resources in most of NA researches. Recently, NA studies such as Al-Husseini (2004), Shuja’a (2004) and Patterson (2001), focused their NA by triangulating multi method approach to, as Patterson (2001) puts it, “clarify the meaning and increase the validity” of the research findings. Triangulation is a procedure used by NA researchers to enhance the readability of their interpretation of their data (Long, 2005). The rationale behind the notion of applying triangulation techniques is to contribute to the trustworthiness of the data and increase confidence in research findings.

In addition, some studies lack an implementation vision such as Al-Dugaily (1999) and Patterson (2001), while other studies, such as Al-Husseini (2004) and Shuja’a (2004) used the finding to propose and suggest developmental modification in the target context. Implementation has become an important component of NA in recent years. Many researches on innovation and implementation have appeared in the last two decades, such as, Holliday and Cooke (1982), Holliday (1994), Waters and Vilches (2001), Bosher and Kmalkoski (2002) and Cowling (2007). The notion “implementation needs” is based on the importance of constructing an understanding on how to implement NA findings and recommendations in the stage of planning (Al-Husseini, 2004).

Based on the understanding of the strengths and weaknesses of the former studies, the present study tries to take advantage of the development in NA theories by expanding the focus of NA to a new trend which is large scale, societal or nationwide NA. It proposes the use of a multidimensional framework to account for the different facets of needs that might occur within the same society. It therefore triangulates theories, methods and sources in order to sustain a more meaningful, valid and reliable information. It is hoped that the present study will help in understanding and developing the state of EFL teaching and to put in practice the innovations in the era of NA as suggested by Long (2005) and Cowling (2007).

**A Multidimensional framework of needs analysis**

Based on the above discussion of theoretical and practical assumption of NA, the current study maintains a multi theoretical perspective or multidimensional model of needs analysis to conduct a societal or nationwide needs analysis of EFL learners. Studies finding, to date, have emphasized the need for triangulation of data source, investigators as well as theoretical perspective such as Long (2005), Aguilar (2005), Taillefer (2007), Cowling (2007) and Krohn (2008). Shuja’a (2004) uses three NA dimensions, which he calls “three folded needs”; target language needs, present situation analysis and means analysis. Purpura and Graziano-King (2004) developed a model which contains four dimensions; the context dimension, the learner dimension, the target dimensions and the present language dimension. They investigate the foreign language needs of professional school students in international affairs. Krohn (2008) uses the same model proposed by Purpura and Graziano-King (2004), but adds a fifth dimension, which is the institutional means dimension, “to find about the language requirements,
expectations policies and course offering and how they may be readjusted to address the needs” (p. 25).

**Figure 1. The Multidimensional model proposed in the current study**

The current study proposes a multidimensional model as in Figure 1. It investigates English language learning needs of EFL students studying in large scale studies by addressing the following domains:

1. Target language Needs; (Munby, 1978)
2. The learning Situation; (Hutchinson and Waters, 1987), English language instruction.
3. The learner situation; the learner motivation and goal for learning English, Hutchinson and (Waters, 1987).
4. Means analysis; (Holliday, 1991) to identify the factors that may impact the implementation of the English language curriculum

The rationale behind adopting multidimensional model for NA in the current study is four folded. First, the model was developed in the context of large scale studies of foreign language needs (Krohn, 2008), which analyzes the language learning needs of EL learners in a large scale context. Second, it has the flexibility of involving multi-dimensions to account for all types or facets of needs that can enhance the language teaching outcomes. For example classrooms in public schools are very complex situations to be analyzed for students needs. The analysts should study all it takes to account for all parties involved in the schooling system such as pupils, teachers, portents, school administration, supervisors, high decision makers, labor market and so forth. Therefore, NA predicts where gaps and unmet needs would be likely to occur for example, the gap might appear between the learning needs and the learner needs; what the learner want to learn and what they are expected to know. Finally, triangulation of needs dimensions contributes to the trustworthiness of the gathered data and increases confidence in the research findings (Aguilar, 2005).
Application of the framework to the Omani EFL context

For the application of the multidimensional framework of nationwide needs analysis we are drawing on an ongoing doctoral research which we are going to briefly explain in the coming section due to the shortage space in this paper. To develop a national framework of needs analysis, the present study investigated the English language learning needs of the Omani grade 11 EFL students. Using a multidimensional model of needs analysis, it addressed the language use context, the English language instruction context, the learners’ motivation and goal context, and Means Analysis context. The research questions covered each of the needs dimensions and also examined the competing discourse found between the different stakeholders. In order to put needs analysis on a sound theoretical and empirical base, the present study analyzed the learning needs at the pre-university/school level students in the Arab world by expanding the NA procedures to account for the different facets of needs such as:

1. The language use context which requires a Target Language Needs Analysis (Munby, 1978). It looks at the language use needs of the students, which can provide information that helps to identify and state the students’ wants, lacks, and necessities (Hutchinson & Water, 1978).

2. The English language instruction context of Omani students which requires a Learning Situation Analysis (Hutchinson & Waters, 1987). It targets the learning situation needs, which seek information about the extent to which the current instruction addresses the students’ needs.

3. The learners’ motivation and goal context which requires the Learner Situation Analysis (Hutchinson & Waters, 1987). It gathers information about the participants’ purposes and attitudes toward the current English language program in the post basic education schools in Oman (Dudley-Evans & St John, 1998), which address learners’ needs analysis.

4. Means Analysis (Hollliday, 1991) to identify the factors that may impact the implementation of the English language curriculum in Omani schools. It covers the means analysis (Jordan, 1997). It gathers information from the decision makers on source, time, teaching experts and support to enhance the EL program.

The reason behind considering the four different contexts as a conceptual framework of the present research was to develop a multidimensional model of needs analysis to conduct a nationwide needs analysis of the linguistic needs of Omani students. This can provide decision makers and teachers in the Omani post basic education schools with empirical data to inform the renewal of the grade 11 English language curriculum.

The rationale behind adopting a multidimensional framework of NA is because it was developed in the context of large scale studies of foreign language needs, as in Purpura and Graziano-King (2004) and Krohn (2008). This framework has the space and the flexibility of considering different dimensions of classroom components to account for all types of needs that can enhance the students’ learning and the language teaching outcomes. It also contributes to the trustworthiness of the data and increases confidence in the research findings (Aguilar, 2005).

Triangulation of data collection techniques and source of information is considered crucial factors in needs analysis (Brecht & Rivers, 2005; Coleman, 1998; Cowling 2007; Long, 2005; Richards, 2001). Therefore, multiple sources, such as, students, teachers, supervisors, heads of the departments and EL textbooks were approached for the purpose of data collection. In addition, varieties of data were gathered and compared using multiple methods such as
questionnaires, interviews, and content analysis. It is worth saying that the information gathered by means of a certain instrument is useful, but not conclusive unless supported by the findings from other instruments and resources, such as students, teachers, supervisors and heads of the department questionnaires, interviews and content analysis which provide an actual picture about the students’ needs that can back up the reported needs gathered by a single resource or a single instrument.

A stratified sampling technique was used to select 982 EFL students and 46 EL teachers teaching English in grade 11 schools. Also 4 EL supervisors and 3 heads of department (supervision and curriculum department) were purposefully selected given their limited number in the Ministry of Education in Oman. The random students’ and teachers’ sample was drawn from four out of eleven educational regions of the whole Sultanate, namely Muscat, Al-Sahraqyah South, Al-Batenah South and Al-Batenah North. According to the current study, the Omani students are divided into regions, and each region is divided into schools, the schools are subdivided into male and female schools.

The current study used questionnaires to collect information from students and teachers in the Omani public schools. The EL teachers’ survey was written in English, while the students’ survey was in Arabic to make it easier for students to understand in their native language. The students’ and teachers’ questionnaires consisted of two sections. Section one collected the demographic information about participants. Section two included the language needs. These data were based on self-reports on the type and frequency of reading skills and sub-skills that the students practice. The skills were chosen for their documented importance in the skill literature. This included 50 items representing skills and sub-skills, which students were asked to indicate on a scale of frequency, how often they face difficulty doing each one during their study.

Almost 100 students were randomly selected for piloting the questionnaire from four different schools consisting of 50 male students and 50 female students. Students were given the Arabic version of the questionnaire. The researcher himself administered the pilot run to the piloting sample to gather information regarding the time taken to complete the questions, the clarity of instruction, the ambiguity of the questionnaire items, requirement to include new topics, and the difficulties encountered in questionnaire adaptation. Only 80 questionnaires (30 male students and 50 female) were found suitable for analysis and 20 were rejected for incompleteness. In addition, to examine whether the developed instrument would report valid scores, the validity of the instrument was assured using content validity, which is the extent to which the questions on the instrument were representative of all the possible questions that a researcher could ask about the study content. In order to make use of the panel of judges’ or experts’ feedback, the questionnaires were handed to 12 arbitrators from Oman, Yemen and the UK. This step resulted in simplification of some terms in the questionnaire to facilitate understanding.

The information gained from these interviews was used for triangulating the data gathered from the questionnaires with the researchers’ interpretation of that data by having supervisors and heads of department talk about their objectives and intentions. Thus, seven interviews were conducted individually. These five questions focused on the learner’s purposes in studying English in Omani public schools, the attitudes towards the current English language program in Grade 11 of Omani schools, and the feedback for the reform of the current program.

Whereas content analysis enhances the researchers’ understanding of what is the exact content of the grade 11 coursebook by making explicit the patterns of language skills choices
found in the current textbooks. The unit of analysis in the current analysis was task based analysis. Ferch (2005), Long (2005) and Long and Norris (2000) advocated that task based needs analysis allows coherence in course design.

As to analyzing the data obtained by questionnaires, descriptive and inferential statistical were used to answer the research questions by implementing the SPSS software. Interview data were analyzed by close study of the transcripts to identify what interviewees say about their attitudes and perceptions regarding the current English curriculum, the needed language skills and sub-skills to improve students’ linguistic competencies in English. After conducting the interviews, the analysis started with their transcription from the audio cassettes. Finally content analysis as a systematic and objective research method was used in collecting data for research question one. A textbook analysis was used in this section to analyze the English language tasks, skills and sub-skills embedded in the grade 11 English language teaching materials.

As mentioned earlier, this study is drawing on an ongoing doctoral research and due to the shortage space in this paper, major findings are highlighted. Textbook analysis reveals that reading and listening are the language macro skills used most frequently whereas little attention is paid to speaking and writing. As to the questionnaires and interviews analysis, it was fond that most of the teachers, supervisors and heads of departments perceive speaking as the most important skill for the grade 11 students and listening as the least important skill. Interviews with higher stakeholders revealed that The subject of needs analysis (NA) has not yet received sufficient attention from researchers and language teaching professionals in the Omani educational system. It was also found that the current EL curriculum does not meet the perceived needs of Omani students according to the expectations of students, teachers, supervisors and heads of department. The majority of respondents considerer that the purpose of the grade 11 EL program is to prepare the students well to pass the General Diploma exam. The majority of the teachers, supervisors and heads of department are not satisfied with the grade 11 EL program. The study also highlights the existence of different perceptions among stakeholders such as between teachers versus students and male versus female students in their attitudes towards the grade 11 EL program as well as a gap between the actual and articulated language needs. To guarantee successful implementation, the implementation needs of the study findings and the recommendations are provided in reference to the underpinning principles and content, the teaching material and methodology, the implication for teachers’ training and the implications for assessment.

**Conclusion**

This article presented a framework for analyzing students’ language learning needs in a nationwide context for the purpose of establishing better learning objectives, and designing content, material and methodology for English language courses. Recent needs analysts namely Al-Husseini (2004), Long (2005) and Nelson (2000) reported that until now, few -if no- studies have been conducted to analyze the learning needs of a whole society or a nation. The societal approach of NA adopted by this study, particularly with regard to sampling, data collection and analysis, may be applicable to further studies in similar context around the world.

In order to put needs analysis on a theoretical and empirical base Long (2005) calls for “replication with different population in different sectors” (p. 12) as well as new methodological
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approach (Krohn, 2008). The present study provided an example of new unexplored population or context in two ways. Firstly, no attempt has been carried out to systematically study the language needs of school students in the Arab world (Kandil, 2009), or more specifically in the Omani context to the best knowledge of the researcher. Secondly, it investigated the learning needs at the school level or pre-university students, which has not been tackled yet. Most of NA studies investigate the learners’ needs at university or college level, such as Al Busaidi (2003), Shuja’a (2004), Al-Husseini, (2004) and Keen (2006).

The current study also replicated the mixed-methods methodology, where data were collected from several sources (informants and documents) and via different methods of data collections procedures and instruments (structured interviews, questionnaires and textbooks analysis). This methodology, which allowed for the collection of both qualitative and quantitative data, was found effective for obtaining a comprehensive and triangulated picture of language needs. Triangulation of data collection techniques and source of information were considered crucial factors in needs analysis (Brecht & Rivers, 2005; Coleman, 1998; Cowling, 2007; Long, 2005; Richards, 2001). Therefore, one particular innovation of this study was its utilization of two types of triangulation: methodological triangulation and data triangulation (Krohn, 2008). Multiple sources, such as students, teachers, supervisors, and heads of department were approached during data collection. In addition, varieties of data were gathered and compared using multiple methods, such as questionnaires, interviews, and content analysis. The current study also provided a methodological empirical example of an assertion made by Waters and Vilches (2001) and Richards (2001) that involving decision makers, such as, language specialists, supervisors, heads of the departments, administrators, employers, and so forth, is fundamental at the foundation building stage. It is also important for the success of implementation of any study, since they decide whether to accept, reject or modify the implementation of the study findings.

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