

Assessing Communicative Language Ability by means of Bachman and Palmer's Model

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Abstract

Assessing communicative language ability refers to the process of collecting data by means of tests in order to make inferences about test takers' levels of language knowledge, and to measure the extent to which they can use this knowledge in contextual target situations. According to Bachman and Palmer (1996), this process requires the outline of frameworks delimiting the constructs to be tested and the development of methods describing how these constructs can be measured. The main aim of this article is to introduce Bachman and Palmer's (1996) conceptualization of language assessment, which can be used as a basis for developing valid and reliable tests.

Keywords : Assessment – measurement – communicative competence – Tests

Introduction

Assessing communicative language ability can be defined as the process of collecting data by means of tests in order to quantify the linguistic mental traits of test takers, or to examine the degree to which they can use language in real target domains beyond the test itself (Bachman, 1990; Bachman & Palmer, 1996; Canale & Swain, 1980; Savignon, 1983, 2002). Since language use requires the interaction of many aspects which make up the language knowledge that is stored in people' minds with the external context, language testers emphasize that test design no matter how narrow the scope it intends to measure, it should be informed with a broad description of the ability to be tested. To put this into practice, Bachman and Palmer (1996) propose an operational framework delimiting and describing the abilities that test developers intend to test, and explaining how these abilities can be measured.

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1. Definition of Communicative Language Ability

Communicative language ability (CLA) has continually been defined with respect to two competencies: competence for grammar and competence for use (Hymes, 1972). In his seminal article 'On Communicative Competence', Hymes (1972) points out that when children acquire their mother tongue or learn a foreign language, they not only learn how to constitute and understand correct grammatical sentences, but also learn how to use these sentences in appropriateness with the social context they occur in. According to him, it is the interaction between these competencies that enables language users "to accomplish a repertoire of speech acts, to take part in speech events, and to evaluate their accomplishment by others" (p. 60).

On their part, Canale and Swain (1980) distinguish between communicative competence and communicative performance. They refer to the former as "the relationship and interaction between grammatical competence, or knowledge of the rules of grammar, and sociolinguistic competence, or knowledge of the rules of language use" (p.6). However, the latter concerns "the realization of these competencies and their interaction in the actual production and comprehension of utterances" (p.6). In the same way, Widdowson (1983) defines CLA as "the ability to produce and understand *utterances* by using the resources of the grammar in association with features of context to make meaning or as the ability to exploit a knowledge of the conventions of a language and its use for the creation of linguistic Behavior " (pp. 8, 9 [*italics in original*])). In summary, CLA encompasses competence or knowledge of language and "the capacity for implementing, or executing that competence in appropriate, contextualized communicative language use" (Bachman, 1990, p. 84).

2. Communicative Language Testing

Moller (1981) provides a comprehensive definition to communicative language testing (CLT). He considers it as the process of giving tests to examinees for the purpose of collecting information about their ability of using the resources of their knowledge of language such as phonology, semantics, and syntax in communicating idea to others speakers/listeners or readers. The ultimate objective of this process, according to the author, is to measure the quality of the message content, as well as the quality of its transmission and reception. In this perspective, Moller defines CLT as the:

2.1. Characteristics of Communicative Language Tests

assessment of the ability to use one or more of the of the phonological, syntactic and semantic systems of the language (1) so as to communicate ideas and information to another speaker/ reader in such a way that the intended meaning of the message communicated is received and understood, and (2) so as to receive and understand the meaning of a message communicated by another speaker/writer that the speaker/writer intended to convey. This assessment will involve judging the quality of the message and the quality of the expression and of its transmission, and the quality of its reception in its transmission (p. 40).

Bachman (1991) identifies four features that can be specified to communicative tests. These include "information gap, task dependency, integration of task and content within a given discourse domain, [and the measurement of] a much broader range of language abilities" (p. 678). The first feature requires participants to incorporate 'multiple sources of input'. The input of a writing task can, for instance, be based on both printed texts, and listening tasks. The second feature 'task dependency' means that doing tasks in one section depends on the content of previous sections. The third aspect concerns the incorporation of content and tasks within a given discourse domain. Four, these tests "attempt to measure a much broader range of language abilities-including knowledge of cohesion, functions, and sociolinguistic appropriateness-than did earlier tests, which tended to focus on the formal aspects of language " (678).

3. Models of Communicative Language Ability (CLA)

Every test has a model of language ability behind it (Alderson, Clapham & Wall, 1995; Lado, 1961; Purpura, 2004). The latter refer to some "abstract theoretical descriptions of what it means to be able to communicate in a second language" (Fulcher & Davidson, 2007, p.36). On their part, models are made up of constructs, which delineate and specify the constituents that are intended to be measured (McNamara, 1996). We can, for instance, mention Hymes' (1972) model which addresses four sectors: grammaticality, feasibility of utterances, appropriateness, and occurrence (whether these utterances are really used by the speech community); Canale and Swain's (1980) three componential framework comprising grammatical, sociolinguistic, and strategic competencies; and last but not least, Bachman's (1990) three constituent model covering language competence, strategic competence and psychophysiological mechanisms. McNamara (1996) delineates three dimensions for CLA models "(1) what it means to know a language (a model of knowledge); (2) underlying factors relating to the ability to use language (a model of performance); [and] (3) how we understand specific instances of language use (actual language use)" (p. 48, [enumeration added]).

3.1. Bachman and Palmer's Model of Language Ability

Building upon Hymes (1972), Savignon (1983), Widdowson (1984), Candlin (1986) and Bachman (1990, 1991), Bachman and Palmer (1996) propose a model of communicative language ability (CLA) consisting two constituents: language knowledge and metacognitive strategies (Alderson, 2000; McNamara & Rover, 2006). Language knowledge is further subdivided into two competencies: organizational knowledge and discourse knowledge. Organizational knowledge is, in its turn, split into grammatical knowledge and textual knowledge. On its part, pragmatic knowledge is made up of two competencies: illocutionary (functional) knowledge and sociolinguistic knowledge. The second component of Bachman and Palmer' CLA refers to metacognitive strategies. These are mental processes responsible "for

implementing the components of language competence in contextualized communicative language use" (Bachman, 1990, p. 84).

3.1.1. Language Knowledge

Before providing a definition to language knowledge, let us first explain what we mean with the term knowledge. The latter can be defined as a "set of informational structures that are built up through experience and stored in long-term memory. These structures include knowledge of facts that are stored in concepts, images, networks, production-like structures, propositions, schemata and representations (Pressley, 1995)" (Purpura, 2004, p. 86). Concerning language knowledge, this can be thought of as the long-term domain of information that is stored in participants' memories and available for spontaneous use by means of strategic competence in producing and comprehending discourse (Bachman & Palmer, 1996). As Table 1 implies, language knowledge encompasses two broad competencies: organizational knowledge and pragmatic knowledge, each of which demarcates a wide spectrum of language aspects.

Table 1. Areas of Language Knowledge

Language Knowledge		
Organizational knowledge	How utterances or sentences and texts are organized	
Areas of organizational knowledge	Grammatical knowledge	(How individual utterances or sentences are organized) Knowledge of vocabulary syntax/phonology/graphology
	Textual knowledge	(How sentences/utterances organized to form texts) Knowledge of cohesion/ Knowledge of rhetorical or conversational organization
Pragmatic Knowledge	How utterances or texts are related to the communicative goals of the language user and to the features of the language use setting	
Areas of Pragmatic knowledge	Functional Knowledge	How utterances or sentences and texts are related to the communicative goals of the language user
		Ideational knowledge
		manipulative knowledge
		instrumental, knowledge
		imaginative knowledge
	Sociolinguistic knowledge	How utterances or sentences and texts are related to the features of the language use setting
		Knowledge of dialects/ varieties
		Knowledge of registers
		Knowledge of natural and idiomatic expressions
		Knowledge of cultural references and figures of speech

Organized from Bachman and Palmer, 1996, pp.66-8 , 71

3.1.1.1. Organizational Knowledge

Organizational knowledge covers "those abilities involved in controlling the formal structure of language for producing or recognizing grammatically correct sentences, comprehending their propositional content, and ordering them to form texts" (Bachman, 1990, p 78). Organizational knowledge is, in its turn, split into grammatical knowledge and textual knowledge. The former is concerned with the knowledge of vocabulary, syntax, phonology, and graphology, and with the organization of words into utterances and sentences. The latter focuses on the organization of utterances to form texts (Savignon, 2002).

3.1.1.2. Pragmatic Knowledge

Pragmatic knowledge "concentrates on the relationship between the forms of language (utterances, sentences, texts) on the one hand and the user's communicative goals and the setting of language use on the other" (Luoma, 2004, p. 99 [explanation in original]). This knowledge is made up of two competencies: functional or illocutionary knowledge and sociolinguistic knowledge. The first is concerned with the functional knowledge of language use; while sociolinguistic knowledge investigates the appropriateness of these functions to the contextual features.

3.1.1.2.1. Functional Knowledge

Bachman and Palmer's conceptualization of this knowledge is consistent with Halliday (1973, 2004) who delineates four types of functions of language use: ideational, manipulative, heuristic, and imaginative. Ideational functions are those utterances that express our experience of the world around us. However, the ones that are used to affect the world around us are specified as manipulative. Utterances that extend individuals' knowledge of the world around them have a heuristic function. The imaginative function "enables people to create or extend our own environment for humorous or esthetic purposes. Examples are telling jokes...creating metaphors... attending plays or films and reading literary works such as novels, short stories, or poetry for enjoyment" (Bachman, 1990, p. 94).

3.1.1.2.2. Sociolinguistic Knowledge

According to Bachman (1990) this competency comprises "the sensitivity to, or control of the conventions of language use that are determined by the features of the specific language use context; it enables us to perform language functions in ways that are appropriate to that context" (94). Bachman and Palmer (1996) identify four components of sociolinguistic knowledge: sensitivity to differences in dialect or variety, sensitivity to differences in register, sensitivity to naturalness and ability to interpret cultural references and figures of speech (Bachman, 1990; Purpura, 2004 Weigle, 2000).

3.2.Strategic Competence

As we have mentioned in the introduction, Bachman and Palmer's model is composed of two constituents: language knowledge and strategic competence (see para 3.1.). The latter can be conceived of as a "set of metacognitive components or strategies, which can be thought of as higher order executive processes that provide a cognitive management functions in language use, as well as in other cognitive activities" (Bachman and Palmer, 1996, p. 70). These strategies have two main roles. They enable the different language competencies to interact internally in order to create language. At the same time, they can serve as a mediator between these competencies and the external discourse.

3.2.1. Phases of Strategic Competence

Bachman and Palmer (1996) identify three phases through which these strategies can operate: goal setting, assessment, and planning. In the goal-setting phase, test takers decide what goal(s) they are going achieve; identify and select a task; and finally decide whether to complete doing that task. In the second phase, they assess the test task characteristics, their own language, and background knowledge in order to determine what relevant areas of knowledge are appropriate for the testing situation. In the third phase, they select the relevant components of language knowledge and incorporate them in their final responses.

4. The Constructs to be measured

As we have mentioned previously, applied linguists define models of communicative language ability as the frameworks, which attempt to describe the scope of what it means to know and to use a language in real contextual situations (Bachman & Palmer, 1996; Canale & Swain, 1980; Hymes, 1990). In their turn, these models are made up constructs "which are [their] principle components and the relationship between these constructs" (Alderson, Clapham & Wall, 1995, p. 17). If we examine Bachman and Palmers' model (1996), for instance, we can see that it is composed of numerous constructs: grammatical, textual, functional, and sociolinguistic types of knowledge. Each of which constitutes a construct that can be measured as a separate universe, or in relation to the other constructs.

4.1.Definition of Constructs

Measurement specialists define language constructs as psychological concepts, which underlie our linguistic behavior (Messick, 1995; Urbina, 2004). Unlike physical traits, such as color, height, length, which can be observed and explicitly measured, psychological concepts need to be inferred and operationalized so that they can be delimited and tested. For example, if we want to measure learners' reading comprehension, we can administer tests, which gather information about their capacity of skimming, scanning, or deducing implicit ideas and information (Alderson, 2000; Alderson, Clapham & Wall, 1995). Consequently, if we want to provide valid interpretations for the

scores obtained in a given testing situation and the purposes for which these scores are intended to be used, "we need to provide evidence that the test scores reflect the area (s) of language abilities we want to measure, and very little else [and] in order to provide such evidence, we must define the construct we want to measure" (Bachman & Palmer, 1996, p. 21) in a way that it would reflect only these abilities.

4.2. Types of Constructs

Three types of constructs can be identified in the literature of language assessment: ability-based, performance-based, and interaction-based (Bachman, 2007; Bachman & Palmer, 1996; Chapelle, 1998; Purpura, 2004). The first type of constructs delineates what people can have in terms of language competence. For example, it examines the extent of their stored language knowledge. The second type describes what language tasks that learners can do with this knowledge. The third type examines the interaction that occurs between learners' internal competencies and the external context by means of strategic competence (Chapelle, 1998; Douglas, 2000).

5. Test Method Characteristics

Language testing builds upon two parts: the 'what' and the 'how'. The former describes the constructs that we intend to measure and the latter outlines the method through which we can measure these constructs (Buck, 2001; Read, 2000; McNamara & Rover, 2006; Shohamy, 2008). The 'how' or the test method describes the characteristics of the persons for whom we intend to administer the test, as well as the characteristics of test tasks with which we attempt to gather information about these persons' language competencies.

5.1. Describing Test Takers' Characteristics

Test takers' characteristics such as personal attributes, topical knowledge, affective schemata, and levels of language ability refer to the factors that do not form a part of the language ability to be measured, but which do have their impact on the interpretations we plan to make on learners' scores. The identification of these factors tends to minimize their effect on test performance on the one hand, and to strengthen the quality of validity on the other. Personal attributes include age, gender, social strata, and native language. Topical knowledge refers to test takers' familiarity or prior knowledge of the test subject matter. Concerning affective schemata, these can be described as the "emotional correlates of topical knowledge [which]...provide the basis on which language users assess...the characteristics of the language use task and its setting in terms of past emotional experiences in similar contexts" (Bachman & Palmer, 1996, p. 65).

5.2. Test Task Characteristics

Test takers usually perform on tests "differently under differing environmental conditions" (Bachman, 1990, p. 118). The author sketches four aspects for the testing environment. These include test takers' familiarity to the place and equipment, the personnel involved in the testing process, the time of testing, and the physical conditions (Bachman & Palmer, 1996). Describing test

characteristics enables test developers to provide uniform testing contexts for all test takers. In this perspective, Bachman and Palmer (1996) identify five aspects of test tasks, which include the setting, the rubric, the input, the expected response, and the relationship between the input and response (see Table 2).

5.2.1. Characteristics of the Setting

Characteristics of the setting, which describes, "the physical circumstances under which either language use or testing takes place" (Bachman & Palmer, 1996, p. 49) include the physical condition, the participants, and time of task. The first feature describes the physical setting. The participants include test takers, proctors, and security personnel. However, the time of task examines the "degree to which the time of testing influences the test takers' ability to perform at their best" (p. 48).

Table 2: Test Task Characteristics

Characteristics of the setting	Physical characteristics	Participants Time of task
Characteristics of the test rubrics	Instructions	Time allotment Language (native, target) Channel (aural, visual) Specification of procedures and tasks
	Structure	Number of part/task salience of part/tasks sequence of part/tasks Relative importance of part/tasks Number of tasks/items per part
	Time Allotment Scoring Method	Criteria for correctness Procedures for scoring the responses Explicitness of criteria and procedures
Characteristics of the input	Format	Channel (aural, visual), Form (language, non-language, both) Language (native, target, both) Length Type (selected, limited production, extended production) Degree of speededness
	Language of Input	Language characteristics/organizational characteristics Grammatical (vocabulary/phonology syntax/ graphology) Textual (cohesion/rhetorical conversational/organization Pragmatic characteristics: Functional: ideational/manipulative heuristic/ imaginative Sociolinguistic: dialect/variety register, naturalness/cultural References and figurative language. Topical Characteristics
Characteristics of the expected response	Format	Channel (aural, visual), Form (language, non-language, both) Language (native, target, both) Length Type (selected, limited production, extended production) Degree of speededness
		Language characteristics/organizational characteristics Grammatical (vocabulary/phonology syntax/ graphology) Textual (cohesion/rhetorical conversational/organization Pragmatic characteristics: Functional: ideational/manipulative heuristic/ imaginative Sociolinguistic: dialect/variety register, naturalness/cultural References and figurative language. Topical Characteristics
Relationship between Input and Response	Reactivity Scope of relationship Directness of relationship	(reciprocal, non-reciprocal and adaptive) (broad, narrow) (direct, indirect)

Organized from Bachman & Palmer, 1996, pp. 50-51.

5.2.2. Characteristics of the Test Rubric

The test rubric "includes those characteristics of the test that provide the structure for particular test tasks and that indicate how test takers are to proceed in accomplishing the tasks" (Bachman & Palmer, 1996, p. 50). These characteristics include the structure (how the text is organized), instructions telling what to do, the duration of the test and its different sections, and how the responses are to be scored.

5.2.3. Characteristics of the Input

The input can be seen as "the data that learners are to work on: it may be linguistic (e.g. a radio broadcast), non-linguistic (e.g. a set of photographs), or 'hybrid' (e.g. a road map)" (Nunan, 1993, p. 59). The input is defined with respect to format and language. Bachman and Palmer describe seven characteristics for the input, which include the channel, form, language, length, type, degree of speededness, and vehicle.

5.2.4. Characteristics the Expected Response

The expected response refers to the answers to test tasks that test developers attempt to elicit by administering tests to examinees. In this context, language testers distinguish between expected responses and actual responses. Due to the ambiguity of questions or the lack of understanding on the part of test takers, the latter can respond in a way, that it is not expected (Bachman, 1990; Bachman & Palmer, 1996).

5.2.5. Relationship between Input and response

This feature describes how the characteristics of the input and the expected response are related to each other in that the type of answers provided by test takers can modify the test input. For example, interview questions can be modified depending on the interviewee's responses. This relationship can be determined in terms of three aspects: reactivity, scope, and directness of relationship (Lumoa, 2004; Weigle, 2002).

Conclusion

Assessing communicative language ability in Bachman and Palmer's model is implemented by administering tests to test takers for the purpose of measuring the extent of their language competence, and the degree to which they can use this competence in real-life target contexts. To implement this process, the authors propose a model delineating the constructs to be measured, and a method telling how these constructs can be measured. Bachman and Palmer's model builds upon two constituents: language knowledge and strategic competence. The former includes grammatical, textual, functional, and sociolinguistic types of knowledge. However, the latter describes the role of the mental strategies in relating utterances or sentences to the external context. Concerning the test method, it provides a description to the characteristics of test takers and test tasks for the purpose of minimizing their effect on test validity.

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قياس الكفاءة التواصلية بواسطة نموذج بكمان وبالمير

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الملخص

تهدف اختبارات اللغة الانجليزية حسب نموذج بكمان وبالمير (Bachman & Palmer, 1996) إلى قياس مستوى الكفاءة اللغوية للممتحنين وكذا مدى تمكنهم من استعمال هذه الكفاءة في سياقات مماثلة لمجالات دراستهم. ولكي تعكس النتائج المحتصل عليها في هذه الاختبارات المستوى الفعلي للممتحنين يقترح العالمان نموذجا يصف ماهية وكيفية عملية القياس والتقييم في المجال اللغوي. تحدد المرحلة الأولى من هذا النموذج الكفاءات الفرعية المستهدفة بالقياس وتبين مرحلته الثانية طرق وكفيات قياس تلك الكفاءات. تبين هذه الورقة أن استعمال نموذج بكمان وبالمير (Bachman & Palmer, 1996) لقياس الكفاءة التواصلية يؤدي إلى بناء اختبارات ذات مستوى عال من الصحة والصدق.

الكلمات المفتاحية: التقييم - القياس - الكفاءة التواصلية - الاختبارات