



# Speaking Skill Review: Core Characteristics, Psycholinguistic Processes, Quality Criteria, and Assessment

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| <p><b>Abstract:</b> Second language speaking can be the most intriguing and challenging among the language macro skills. It is perceived by many learners, teachers, and employers as the showcase of second language acquisition, mastery on which is both laborious and laden with individual fluctuations. The present study is aimed at scientifically scrutinizing speaking skills from various angles to portray a comprehensive picture of the multi-faceted linguistic behavior. To this purpose, the exploration constitutes the description of speaking and its typical forms of use in both educational and social settings, factors that contribute to speaking and influence its quality, the cognitive dimensions and processes of oral language production, commonly-used measures to rate (L2) speaking quality, and the operational techniques of speaking assessment for achievement and proficiency purposes. The endeavor is meant to assist second language materials developers, instructors, test makers, and more significantly, learners in coping with the complex skill more technically and effectively.</p> <p><b>Keywords:</b> L2 Speaking, Speaking Psycholinguistics, Speaking Quality, Testing Speaking.</p> | <p><b>Review Paper</b></p> <p><b>*Corresponding Author:</b><br/><i>Ali A. Ariamanesh</i><br/>Assistant Professor of<br/>Applied Linguistics,<br/>University of Isfahan, Iran</p> <p><b>Article History:</b><br/>  <b>Submit:</b> 03.05.2026  <br/>  <b>Accepted:</b> 01.06.2026  <br/>  <b>Published:</b> 06.06.2026  </p>                             |
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## 1. INTRODUCTION

This multiple-book-review article intends to examine oral language production from different perspectives, comprising general themes such as the essential peculiarities of speaking, psycholinguistic mechanisms behind oral production, speaking quality criteria, and approaches to speaking skills assessment. Block and point by point (thematic) are two major methods to embark on multiple book review (Erwin, 1997). Based on the length of this study and the componential nature of the review process, the thematic method is adopted to more rigorously examine the themes of interest. Accordingly, the aforementioned subtopics are successively scrutinized in light of the selected books, followed by an overarching model to depict a portrayal of the speaking skill components.

## 2. Characteristics of Speaking

The speaking skill has been addressed by different linguists, scholars, and experts associated with the second language acquisition field (Brown, 2004; Ellis, 2008; Fulcher, 2003; Harmer, 2015; Kaplan, 2010; Luoma, 2004; Tomlinson, 2013, 2023). Nunan (1999)

defines speaking as an integral part of communicative competence and contends it comprises both how to articulate the speech sounds in a comprehensible way and a good command of vocabulary and syntactic knowledge. These components account for linguistic competence, which together with communicative competence may enable an individual to use language pragmatically. Second language speakers require the core linguistic knowledge enriched by sociolinguistic and conversational skills, including rules of speaking and knowledge of speech acts, to act appropriately in their interactions. Two stereotypical purposes of speaking are interactional and transactional uses. The former encompasses interactional routines that are used for social and interpersonal purposes, whereas the latter includes informational routines to exchange information and accomplish tasks. The transactional mode is further subcategorized by Nunan (1999) into expository (e.g., describing, comparing, instructing) and evaluative language use (e.g., explaining, justifying, predicting). Nunan (1999) further concentrates on the relationship between speaking and genre. He asserts that different speech events lead to different text-types with specific structures that reflect a diversity of socially-driven

communicative events. Speaking and task difficulty are also addressed by Nunan, where he outlines data complexity, degree of abstraction, and contextualization as influential factors contributing to speaking difficulty. Task complexity, involving the required steps to fulfil the task, its meaningfulness, and how much time and practice is available, also plays a significant role. Second language speakers' level of confidence and motivation, topical and content knowledge, linguistic competence and familiarity with the speaking task may all alter the quality of oral output.

Brown (2001) argues that listening and speaking are closely interrelated both communicatively and pragmatically. This interaction is best manifested through conversation, which is the most popular discourse form in oral L2 development through collaboration and negotiation of meaning. While conversing, speakers are supposed to know how to cope with the core conversational rules such as topic nomination, maintaining the conversation, turn-taking, and terminating the speech event (Brown, 2001, p. 268). Elaborating on fluency and accuracy as two of the most discussed aspects of L2 speaking, Brown (2001) links speech fluency to message-oriented tendencies when language use is more emphasized. However, speech accuracy relates to language-oriented preferences with priority given to language usage. The use-based views of speaking capabilities are more functional and communicative than the usage-based ones, which are necessarily linguistic and form-focused. Yet, the two aspects seem to complement one another since fluent and accurate oral performance is more effective. As for speaking complexity, Brown and Lee (2015) believe that both syntactic and lexical complexity should be developed. Aside from the cognitive aspects, a major block facing L2 speakers is their affective conditions, where anxiety is discerned as a principal factor. This negative filter, which may be rooted in embarrassment or judgement of listeners, has the potential to make learners almost completely reluctant to speak. Second language speaking subsumes successive production of language chunks with well-formed grammatical and phonological patterns in an adequately fluent way. Besides, utterances have to be interconnected by appropriate cohesive ties to fulfil communicative events through form-function mappings. An L2 speaker must constantly be monitoring their production and applying an array of strategies, such as paraphrasing, to facilitate the interlocutor's understanding.

A taxonomy of L2 speaking types is presented by Brown and Lee (2015), where they try to differentiate each category by highlighting some idiosyncratic features. According to them, imitative speaking occurs where individuals are required to copy an aural input and resay it with all its phonological peculiarities. In this speaking type, some potentially challenging linguistic

elements are meant to be practiced. Intensive speaking is when students practice some phonological and grammatical aspects of the target language. Of course, the endeavor may include some pair work to approach the authentic uses of language. Another speaking type is responsive, during which L2 speakers are required to provide relevant responses to questions mostly asked by the teacher. Yet, such interactions are not long enough to be dialogic. Transactional speaking is the category that encompasses dialogic interactions for specific information is to be conveyed. Compared to the previous type, this one holds some longer oral language exchange. Interpersonal (interactional) form of speaking is when two or more individuals take turns, exchanging some personal ideas or emotions aimed at maintaining social relations. Finally, extensive speaking takes a monologic form, where L2 speakers are expected to speak longer stretches of language such as lectures, oral summaries, and so on.

On the features of spoken language, Fulcher (2003) explains that speech displays more repetitive and reformulated sentences; it is shrouded with more conjunction than subordination. Speaking is dependent on the context's formality level, the interlocutors' proportional status, as well as the topic of conversation. Oral performance is necessarily reliant on the speaker's linguistic repertoire, pre-fabricated or formulaic chunks, and the ability to communicate one's ideas. Fluency and automaticity, in addition to accuracy, are necessary for speakers to perform naturally and efficiently. Fulcher (2003) duly asserts that the level of one's oral language fluency and automaticity depends on several factors including the complexity of the intended message, topic familiarity, the degree of speededness, and how much accuracy is required. Speakers have to make selections in terms of the psycholinguistic choices related to the mental processes and the sociolinguistic ones, dealing with contextual and interactional aspects of communication. There are also some operational factors that may be challenging to second language speakers. Among these factors are pronunciation and the other prosodic aspects of speaking that may pose problems to L2 speakers. Communication and strategic competence have been discussed in close relationship (Canale, 1983; Canale & Swain, 1980; Celce-Murcia, 2007; Celce-Murcia *et al.*, 2014). In this regard, Fulcher (2003, pp. 31-33) argues that achievement strategies are taken when L2 speakers try to compensate for their deficiencies against their intended messages. The following strategies belong to this category.

- **Overgeneralization** occurs when L2 speakers use lexical or morphological items over the authorized forms of the target language.
- **Approximation**, which is basically lexical in nature, happens when L2 speakers resort to some general words for those more specific ones yet unknown to them.

- **Paraphrasing** is mostly vocabulary- or phrase-based through which synonyms are used. Description and explanation are also subsumed under paraphrasing.
- **Restructuring** is the strategy by which L2 speakers may go back to an already given idea that needs some other form of communication for better comprehension.
- **Cooperating** is a mutual attempt when an L2 speaker tries to get the listener's help to negotiate the intended meaning.
- **Non-linguistic** strategies are those connected to the early speaking context as well as those facial and physical signals.

Additionally, avoidance strategies are called on when individuals avoid using some forms that they are not confident about due to insufficient mastery. *Formal* avoidance occurs when an L2 speaker refrains from using a part of their linguistic system due to lack of enough proficiency. However, *functional* avoidance is applied when L2 speakers prefer to avoid commenting on some topic or even abandon the whole conversation. Kaplan (2010) defines the speaking skill as a hierarchical performance where the conceptual plans and intentions are manifested through formulation and production of ideas, fitting to the contextual features. Lexico-grammatical features of spoken language are reviewed by Kaplan (2010, p. 69) to illustrate what dimensions specify the speaking skill per se. Due to some peculiarities such as lack of enough planning time in real speaking and its rapidly-faded form, oral language is characterized by being lexically less dense and having less noun pre-modification. The same conditions may lead to more repetition and paraphrasing to make oral signals understandable. Speakers presuppose some shared knowledge with their addressees, which results in more cooperation by listeners. This presupposition, then, leads to various forms of ellipsis in speech. During L2 speaking development, learners can practice micro skills such as grammar and vocabulary followed by some more contextualized macro skills where spoken performance is meant to reflect the social uses of language for communication. The process agrees with moving from declarative knowledge of speech to proceduralized oral communication. However, Kaplan (2010) believes that "attention to language form should be handled only within the context of a focus on meaningful communication" (p. 73). This quotation clearly stresses the importance of the contextualized development of L2 speaking. Also, implied in the above comment is an emphasis on both speech accuracy, which is meant to develop via focusing on form, and speech fluency supposed to be achieved by more integrated communication. Sometimes a distinction is made between desire-driven and purpose-driven impulses as two main reasons for speaking. The former conforms to expressing one's ideas, wishes, feelings, and the like,

whereas the latter reflects negotiations to solve some problem or establish social relations (McDonough *et al.*, 2013, p. 157). In particular, L2 speakers are required to know how to practice negotiation of meaning during communicative oral language use. McDonough *et al.*, (2013) highlight some characteristics of spoken language by describing two subskills involved in any speaking performance.

- **Motor-receptive skills:** They are linguistic in nature and comprise the elements such as pronunciation, lexical units, and grammatical structures.
- **Social-interactional skills:** They involve how to say what in an effective and appropriate way, fitting into the communicative context to attain one's intentions.

Spoken discourse is known by incomplete forms due to ellipsis, more active than passive voice, less application of explicit logical connectors (e.g., *consequently*), unusual topicalization for emphasis, reformulation through ongoing modification, the use of vague words (e.g., *stuff, things*), and repetition of fixed phrases and fillers (McDonough *et al.*, 2013, p. 165). Tomlinson (2013) emphasizes the importance of such verbal communication strategies as choosing how to open speaking, dealing with interactional pressure, handling unplanned oral discourse, knowing how to go on to a new topic, and terminating the oral interaction in an appropriate way. An important suggestion for teaching L2 speaking is that "form and use should not be mutually exclusive" (Tomlinson, 2013, p. 409). That means both linguistic elements and pragmatic communicative aspects should be worked on simultaneously. Concisely, the following dimensions of oral language performance are expected from L2 speakers (Tomlinson, 2013, p. 416).

- Sharing information through reactions, justifications, suggestions, judgements, etc.
- Being able to control meaning in pragmatic/functional occasions.
- Choosing right strategies to participate in oral communication.
- Knowing how to benefit from one's topical/world knowledge.
- Realizing how to efficiently resort to common forms of ellipsis in spoken language.

English language teachers can upgrade their L2 learners' speaking capabilities through participating in small talks, discussing personal experiences, justifying one's opinions, making comparisons, and persuading others to do something or take a viewpoint, to name a few. Celce-Murcia, Brinton, and Snow (2014) claim that speaking is the fundamental skill in second language development and communicative approaches to L2 learning. Referring to Brown (2007), Celce-Murcia *et al.*, (2014) consider some characteristics like clustering

of ideas, contractions, colloquial forms, use of idioms and expressions, and the prosodic elements as the factors contributing to speaking complexity. Moreover, oral language performance is mostly a cooperative endeavor, where speakers have to pay attention to how their messages are evaluated and internalized by their interlocutors. Fluency, accuracy, appropriacy, and authenticity are four fundamental features of the speaking skill raised by Celce-Murcia *et al.*, (2014). As to appropriacy, which is influenced by the pragmatic contexts of use, L2 speakers are expected to be socially and culturally competent. They should possess a good command of speech acts to convey their intended meaning and fulfil social functions effectively. Another field directly related to L2 speaking is conversation analysis, which is defined as a sociological approach to explore various aspects of talk in interaction (Celce-Murcia *et al.*, 2014, p. 110). Conversation analysis is supposed to uncover the organization systems underlying different forms of speech in social settings.

Focusing on communicative competence, Brown (2014) reviews two frequent speech-mediated activities. One pertains to the basic interpersonal skills by which people develop social relations and daily routines. Academic (educational) language use is the second one, where both written and oral language are drawn on to consciously practice linguistic forms. Speakers must be equipped with both linguistic forms and the actual realizations of language conforming to intended functions to act communicatively. To this accomplishment, language users should possess the grammatical knowledge of forms, textual knowledge of how utterances are connected, pragmatic competence, strategies to act and interact effectively, and sociocultural awareness of macro contexts (Brown, 2014, p. 210). Among the speech-mediated functions of language, the representational function belongs to conveying information or knowledge, making statements, and representing reality. The interactional function concerns speakers trying to maintain social connections and phatic relationships. There is also the personal function, where speakers express their feelings, personality, reactions, etc. (Brown, 2014). A notable feature of talk in interaction is germane to speech styles adopted by speakers in accordance with the speaking occasion, norms and conventions, topic, interlocutor(s), and purpose of communication. Brown (2014, p. 222) provides the following speech styles, primarily, based on the formality level.

- **Oratorical** is a pre-planned monologic speech format before a large group of audience.
- **Deliberative** constitutes a less-planned and more extemporaneous speech style.
- **Consultative** implies a dialogic and rather formal speech style such as in teacher-student or doctor-patient interactions.

- **Casual** relates to a familial/social speech style among friends, colleagues, and the like.
- **Intimate** includes an informal style of speaking where many social barriers/inhibitions are abandoned.

Harmer (2015) stipulates that second language speakers should learn different formality levels in addition to general fluency and accuracy. Harmer further raises spoken grammar and states it is characterized by such salient features as ellipsis. It occurs when speakers make their production shorter by leaving out some parts supposed to be inferred by listeners. Lexical phrases and adjacency pairs, like conversational routines and formulaic forms, are valued by Harmer as important tools for fluent speech. Adjacency pairs are fixed phrases that mostly comprise two units (e.g., *Yes, thanks*). L2 speakers can overcome the spoken grammar difficulties by listening to competent speakers and take samples to enhance their own speaking. Besides, conversational strategies must be known by L2 users, enabling them to compensate for their deficiency and misunderstanding. Repairing is such a strategy by which a speaker attempts to reproduce an already-uttered idea in a more understandable way. Harmer (2015) proposes the following activities to help learners promote their oral production.

- Interactions based on the written scripts of dialogues and plays, drawing attention to prosodic features and communicative meaning.
- Communication games, such as information-gap games, giving learners opportunities to interact in L2, solve puzzles, jointly arrange common activities, etc.
- Discussions as the most authentic speaking activities, involving brainstorming, holding debates, and reaching consensus.
- Lectures and presentations, which are usually preplanned and rather formal.
- Simulations and Role-plays, making learners simulate a real-life activity such as a job-related meeting or an interview as if they were acting in the real world.
- Storytelling as another real-life task for speaking practice, claimed to be highly motivating for L2 students and not much demanding.

### 3. Psycholinguistic Processes in Speaking

A basic psycholinguistic feature of speaking is manifested in pauses and hesitations. They are periods during which speakers plan what to say and how to perform it. Moreover, speech pauses may be due to inability of the speakers in retrieving their intended forms from their linguistic repertoire. Another reason is rooted in the inefficiency of working memory. Field (2003) distinguishes between two closely-related aspects of oral language production, naming speaking rate and

articulation rate. He illustrates the distinction by specifying the former as the overall amount of produced speech and the latter as how rapidly syllables are formed by a speaker. He further compares hesitant and fluent speech, referring to speaking pauses. Correspondingly, a speaking attempt with short runs (between two pauses) is called hesitant while an attempt involving long runs is labelled fluent speech. Implied in this bifurcation is the fact that a hesitant speech is marked with more pauses than a fluent speech. The following speech types are defined based on the frequency of pauses (Field, 2003, p. 37).

- **Continuous fluent** speech runs connectedly without pauses.
- **Non-continuous fluent** speech is marked by pauses at clause boundaries.
- **Non-continuous hesitant** speech has pauses at clause boundaries and within clauses.

Field (2003, p. 81) proposes a comprehensive account of the multiple stages of speech production in detail. Based on his summary, there is a primary level at which lexical access from the conceptual lemma happens. Simultaneous to coding a word's meaning, the proper syntactic structure based on the main verb is established. Then, the syntactic frame including inflections, definiteness, and the overall intonation is decided upon. At the same time, a mental buffer, which is a combination of lexical items and syntactic requirements, is made. The next step is where phonological information about words as well as their stress-position is retrieved and located within the created syntactic frame. Likewise, the concrete inflectional morphemes and articles are formed to fit the syntactic structure. Finally, the phonemes of the chosen words are created and, at last, the signals are sent to articulators for the utterance to be physically produced. It is also immediately after the last stage when speakers make their chunks of speech with some co-articulation effects such as assimilation and elision. Traxler and Gernsbacher (2006) try to shed more light on the sequence of speech generation through the following detailed steps.

- **Conceptualization:** Speakers decide upon an intended content to be expressed while taking into account the situational constraints on the way to express it. This prelinguistic message-planning is allocated to the semantic and pragmatic properties of speech.
- **Formulation:** This stage accounts for selecting suitable words and their corresponding sounds, which is performed in relation to the already specified semantic and pragmatic requirements. The lexical entry needs to fit the intended syntactic context too. Phonologically, a selected word should be organized into stressed/unstressed syllables.

- **Articulation:** The final step is executed by transferring the phonetic forms encoded in the previous stage to the motor system for physically producing an utterance.

Traxler and Gernsbacher (2006) further scrutinize the properties of oral language production at word level. They clarify that speakers first retrieve the meaning-based properties of words then their sound-based features, which shows conceptualization has priority. Once an idea is conceptualized in the mind, a group of words all sharing some core meaning is activated concomitantly. The words then will go in competition to be selected by the speaker based on the requirements of the context, which is also filtered by grammatical factors. It should be remembered that sometimes conceptualization at the message-formation level takes place but word formulation and then articulation fail to happen properly. This lends support to the frequency factor by which common words with high frequency are much faster retrieved in terms of phonological encoding while speaking.

Carroll (2008) explains two main models of linguistic planning for speech production: i) Serial, and ii) Parallel. Serial models envisage some sequence of stages for speech production. We first concentrate on the meaning to express with some further processing of its specific aspects. Afterwards, a syntactic structure will be specified to the utterance, including which words to get major stress, followed by assigning the overall intonation pattern of the utterance. Then, the content words will be added to the selected syntactic structure. The next words to be added are those function words and morphemes. Finally, the appropriate phonetic form is produced to be sent to articulators. Carroll (2008, p. 201) summarizes the following corroborative details of the oral language production stages.

- **Conceptual** stage at which speakers conceptualize their message.
- **Lemma** stage during which syntactic features are activated.
- **Lexeme** stage where words and morphological units are retrieved.
- **Phoneme** stage that involves assembling phonetic features of words.

Parallel models of speech planning, however, assume multiple processes occur almost simultaneously, not in a linear and sequential manner. Holistically, such speech production models comprise the semantic, syntactic, morphological, and phonological components (Carroll, 2008, p. 204). It is understood that an intended message has different representations at each of these four levels. The term parallel means when one aspect of the speech is activated at each of the noted levels, other aspects of that message are activated at other levels simultaneously. The detailed review of the underlying

stages of speech production reveals that planning for speech production is very cognitively demanding, which may cause L2 speakers to experience several pauses during their production. Some reasons may be responsible for paused speech, including word frequency, one's vocabulary size, morphological complexity, lexical ambiguity, the recency of usage, etc. (Carroll, 2008, p. 210). A similar model of oral language production is reported by Harley (2014, p. 400). The model involves message level, functional level, positional level, and sound level. Content words are retrieved at the functional level to fit the selected structure, but function words and morphemes are assigned at positional level. To put it clearer, at functional level, speakers determine the functional relations in their conceptualized message (semantic representation) and specify the functional roles of the content words they want to express. Once the phonological representations of the content words have been recalled from the mental lexicon, the syntactic positions of the selected frame are formulated. The syntactic positions then give rise to the specification of function words and other grammatical elements of the utterance to be uttered phonetically.

An important phenomenon called syntactic priming or persistence (Harley, 2014) is believed to have a facilitative function while speaking. It is the repetition of a syntactic structure which has already been presented by the same speaker or another source. Basically, syntactic priming suggests that an already processed structure encourages the repetition of it in the aftercoming language production. Of course, the priming phenomenon is not solely limited to syntax and word order. It means speakers tend to reuse the words and concepts expressed in the previous utterance or the general context of conversation. Harley (2014) claims that syntactic planning happens incrementally, which implies it is completed online in the course of continuous speech. Given this, speakers do not plan the entire syntactic structure of a complex utterance in advance. Instead, they complete the first phrase and send it to the phonological level to be articulated, and afterwards, move on to plan the next syntactic frame.

Harley (2014) emphasizes that content and function words in the speech producing mechanism are distinctive because the errors observed in relation to each are never exchanged. In the meantime, speech errors indicate lexical biases due to similarity or familiarity among them, which shows the lexicalization process during speech is interactive. It is also illustrated that planning pauses at micro-level indicate temporary difficulty in retrieving the sounds of less predictable words, whereas those planning hesitations at macro-level are allocated to both semantic and syntactic planning. Based on the discussion so far, a speaker needs to take an idea from working memory and move it into a

linguistic plan. The activated concept is required to be represented by appropriate words organized in a syntactic frame that can communicate the idea effectively. The entire utterance, then, must be translated into some phonological form which, in turn, paves the path for speech articulation. Concurrently, speakers are expected to keep track of the way their ideas are perceived by interlocutors and make revisions if necessary. One of the central aspects of speaking is the generation of an appropriate syntactic structure. Fernandez and Cairns (2018) confirm that there are close links between syntactic structures and memory representations during speaking. The claim holds true since the activation and selection of syntactic features to create an effective structural plan for speaking are influenced by the accessibility of relevant information in one's working memory. Fernandez and Cairns (2018) synthesize flexibility in oral language performance with how syntactic structures are generated. Familiarity and predictability of words are other causes of flexibility in speaking. Furthermore, they discuss reduction in speaking, which means speakers make some ideas implicit. During a collaborative act of speaking, reductions are natural markers of online planning.

Oral production and comprehension interact with each other, yet the two mentioned systems are not interactive themselves (Fernandez & Cairns, 2018). To illustrate the relationship, consider self-monitoring whereby speakers check the quality of their utterances before articulating them. This demonstrates production is independent of comprehension. On the contrary, once an utterance is physically articulated, there may be some revision triggered either by the speaker's own comprehension or that of the addressee. This reality proves the existence of some interaction between production and comprehension.

Finally, an integrated model of oral language production covering the decisions made by speakers at different levels of speech is presented (adapted from Kaplan, 2010, p. 64).

1. **Discourse Modeling:** The discourse plan entails speaker's topic, intended outcome, how to interact, relationship with interlocutors, etc. Due to its socio-cognitive bases, this level may cause cross-cultural misunderstanding. An important facet of speaking at this level relates to an individual's world knowledge on various topics.
2. **Message Conceptualization:** This level covers decisions on the utterances to be created, pragmatic purposes of speech, content, and contextually appropriate speech acts. To meet these aims, relevant concepts and words need to be retrieved.
3. **Message Formulation:** Through this stage of speaking, the conceptualized thoughts made

during the previous level are given a linguistic form. From their language stock, speakers recall related lexical items, select an effective syntactic structure, gather the needed grammatical morphemes, and prepare a phonological scheme.

4. **Message Articulation:** This step of speech production is rather automatic, especially, for native speakers who execute the sounds of their speech with minimal effort and consciousness. The act is more effortful for L2 speakers due to cognitive constraints.

#### 4. Speaking Quality Criteria

There are three major discourse-based features including complexity, accuracy, and fluency (CAF) known as speaking quality criteria. These characteristics have particularly been employed to rate L2 speech for both acquisitional and assessment purposes. The CAF triad are briefly defined as follows.

- **Complexity** relates to the degree of elaboration and advanced language use reflected by longer, more detailed and complex clauses. A prevalent measure of speech complexity is by counting the number of clauses per C-unit or T-unit.
- **Accuracy** means the degree to which the uttered language is well-formed and conforms to the target language rules and conventions. A common index for accuracy is the percentage of error-free clauses.
- **Fluency** centers on the capacity to produce a continuant flow of speech without interrupting hesitations. One way to measure fluency is through the ratio of produced syllables per minute.

Fulcher (2003) asserts that L2 speakers may give more significance to grammatical rules of the target language for more accuracy at the price of fluency. However, if speakers pay more attention to the communicative flow of their speech, and less to their linguistic accuracy, the result will be a higher level of speech fluency. Thus, some trade-off effect may exist between the two criteria, because attending to one dimension may lead to a decline in the other. Grammatical inaccuracy mostly includes deviations of word order, omissions of forms in obligatory contexts, and the incorrect use of pronouns, relative clauses, tenses, prepositions, and so on. Fulcher also reviews some sources of disfluency in L2 speech characterized by hesitations during which speakers grope for words in their memory. The following phenomena are signs of non-fluent speech (Fulcher, 2003, p. 30).

- Hesitations marked by either filled or unfilled pauses
- Repetition of the same words or syllables
- Substitution of the already mentioned words
- Correction of the erroneous forms

- Restart of an utterance due to realizing that the first start was false

Ellis and Barkhuizen (2005) duly review different aspects of complexity, accuracy, and fluency. The complexity measure is reported by them as comprising two main representations. One refers to the use of more elaborated, challenging, and complex language. The second view towards complexity looks for the variety of grammatical structures used by learners. That means, the more different the used structures, the higher the complexity level. A common way of measuring complexity is through the degree of subordination, where more subordination is believed to result in more complexity. Ellis and Barkhuizen further define accuracy as observing the grammatical requirements of L2 system. However, they confess this approach might not be fully tenable as it does not consider lexical issues. There are several techniques to measure accuracy, including the percentage of clauses free of errors, or the proportion of different types of error per 100 words. L2 speakers may prioritize fluency over accuracy by giving more weight to communicating their meaning than being conservative to linguistic forms. Traditionally, fluency has been measured by temporal variables such as speech-rate and the duration of pauses as well as the hesitation phenomena such as the number of reformulations, repetitions, and false starts (Ellis & Barkhuizen, 2005, p. 140)

As a matter of fact, learners usually prioritize either the message they intend to communicate, which ends in more fluent speech, or the form of their oral performance, which is probably effective on accuracy and complexity. It is because L2 speakers' working memory and mental capacity are limited, especially when oral language is focused. The mentioned limitations make L2 speakers unable to concurrently attend to both the message and form of their speech with full concentration. Working memory has to cope with conceptualization, formulation, and articulation of oral language all with paying attention to both the appropriacy of content and how it is formed in terms of the linguistic and discursive requirements. The multi-dimensional task seems to be laborious for L2 speakers; therefore, they try to lighten the imposed load on their working memory by giving priority to one aspect over the other.

Ellis and Barkhuizen (2005) report two types of linguistic systems L2 learners possess: i) The exemplar-based system, and ii) The rule-based system. The former reflects the fixed chunks of language, which are usually used as prefabricated or formulaic phrases. However, the latter entails the knowledge of the cognitive rules of grammar by which well-formed linguistic units are produced. The exemplar knowledge of L2 can exert more fluent speech as language chunks are retrieved more

effortlessly. On the other hand, the rule-based linguistic knowledge should produce more complex and accurate language. It is predicted that topic familiarity is probably more effective on speech fluency than on either accuracy or complexity.

Among the measures of evaluating L2 inaccuracy, the density of errors per 100 words is perceivably more common since it does not necessitate deciding upon what constitutes a clause, which is quite controversial. Spoken fluency consists of two principal categories, including the temporal and hesitation/repair phenomena. Temporal variables consist of speech rate, the number and length of pauses, and the mean length of run between two pauses. Hesitation and repair phenomena are represented by false-starts, mere repetitions, reformulations that contain modification, and the replacement of freshly-uttered words (adapted from Ellis & Barkhuizen, 2005, p. 157). Concerned with linguistic complexity, Ellis and Barkhuizen (2005, p. 153) review the following viewpoints.

- **Interactional** perspective includes the number and mean length of turns.
- **Propositional** perspective comprises the number of idea-units. An idea-unit is defined as a message-unit with a topic and some comment on it.
- **Functional** perspective involves the number of times a specific language function is encoded.
- **Grammatical** perspective entails the amount of subordination, the number of different verb-forms produced, and the mean number of verb-arguments.
- **Lexical** perspective considers the number of different individual words to the total number of words in a text.

Kaplan (2010) explains two kinds of memory that speakers exploit to cope with the challenges of oral production. Extensive memory processes lexical items as well as formulaic phrases or language chunks. The second memory type stores the lexical-grammatical knowledge of language basically deployed by speakers for creating novel utterances. The extensive memory provides speakers with some ready-access phrases that do not impose much load on their mental capacity. Consequently, they can speak more fluently. The lexical-grammatical repertoire, however, demands more planning time and effort to produce novel utterances. In spite of being more time-consuming, this recent process enables speakers to monitor their speech accuracy and be able to generate more novel and diverse utterances. Kaplan (2010) emphasizes that L2 speakers may decide to give priority to one or two of the CAF features due to their limited mental capacity. However, all three salient features of speech (CAF) need to be taken into account simultaneously in any oral performance task.

On second language speaking performance, Celce-Murcia *et al.*, (2014, p. 107) report that speech accuracy is achieved by focusing more on language system, whereas speech fluency is enhanced through operating an oral performance quickly. The former is said to be more language-oriented with an emphasis on linguistic demands, while the latter seems to be more message-oriented as speakers try to communicate their ideas more naturally and continuously. It is believed that more control/attention is required by L2 learners to develop higher accuracy in their oral performance, while to be more fluent, they have to let their flow of speech move on freely. Regarding fluency, Ellis (2008) raises formulaic forms and asserts they perform two functions: i) As fillers to cover pauses and plan speech online, and ii) As organizers to help speakers create an appropriate structure for their intended message. Besides, Ellis reviews access fluidity and attention control as the other processes that contribute to speech fluency. The former is responsible for connecting words and expressions during word-retrieval process, while the latter relates to speakers' continuous focus on the relations among their ideas.

Comparing the CAF dimensions, Ellis (2008) claims that fluency makes L2 speakers resort to their memory and call upon the already-existing linguistic units to express themselves. Whenever this mechanism fails, however, they draw on different strategies to survive. On the contrary, the accuracy and complexity of speech require learners to activate their rule-based knowledge of the target language and the related syntactic processing system. Moreover, Ellis distinguishes complexity from accuracy, clarifying that the former needs some kind of re-structuring to create more elaborated forms, whereas the latter is achieved by controlling the application of the existing rules of L2 grammar free of errors. The so-called trade-off effects are similarly spotlighted by Ellis (2008) in conjunction with the CAF features. For instance, if L2 speakers choose to focus more on their speech accuracy, then, their complexity or fluency of speech, or even both, will negatively be affected. It is confirmed that the limited processing capacity of learners is the main factor to raise such competitions among the speech quality criteria. The argumentation may imply that complexity, accuracy, and fluency are distinct and thereby go into competition with one another. Tomlinson (2023, pp. 428-431) reports that verbal fluency consists of three main facets: i) Cognition, ii) Utterance, and iii) Perception. The first component, cognitive fluency, is relevant to speech planning in the mind, which is focused on rapid message formation. This fluency facet relies on linguistic knowledge and how to apply it for oral production. Utterance fluency implies the physical flow and speed of speaking in an accurate and effective way. As it is operational, utterance fluency encompasses social skills of interaction and playing different roles and functions. Finally, perceived fluency

is evaluated in terms of the addressee's ease of comprehension of the uttered message and how well an utterance achieves its effect. Tomlinson (2023) summarizes verbal fluency as "a procedure of speech planning, speech production, and the intended impact".

## 5. Assessment of Speaking

Brown and Yule (1983) review four main task types including description, instruction, storytelling, and opinion expressing to assess the speaking skill. In a more elaborated way, Bygate (1987) suggests a dichotomy of speaking task types, each including a number of subcategories: i) Factual talk (description, narration, instruction, & comparison), and ii) Evaluative talk (explanation, justification, prediction, & decision). Similarly, the Council of Europe (2001) classifies the speaking task types into six main categories.

- Giving factual information (e.g., describing, reporting)
- Expressing attitudes (e.g., agreement, disagreement)
- Suasion (e.g., suggesting, requesting)
- Socializing (e.g., greeting, introducing)
- Organizing discourse (e.g., opening, summarizing)
- Communication repair (e.g., paraphrasing, appealing for assistance)

Speakers have to combine their knowledge of grammar, lexis and pronunciation, and the discourse rules with the production and accuracy skills all in a very short lapse of time for a piece of oral discourse to be produced. The process turns even more complicated when it comes to measuring the oral productivity of second language learners. In concert with oral language assessment, Douglas (1997) concentrates on testing speaking abilities in academic contexts. One of the fundamental issues is the degree of context-embeddedness that a language test task entails. It is associated with the amount of situational and para-linguistic support provided for language users. Test situations are believed to be less context-embedded than the non-test counterparts. Douglas (1997) clarifies that world knowledge and language knowledge, as two subcategories of the knowledge component in speech production, are directly related to context-embeddedness. It is recommended that speaking and listening should be tested at the same time, using integrated tasks (Douglas, 1997). Furthermore, speaking test designers should make the input as much dialogic and context-embedded as possible. In other words, the relationship between the provided input and the discourse expected from test takers should be reciprocal for authenticity purposes. McNamara (1996) divides performance-based language tests into the strong and weak version. He asserts that the strong version stipulates the replication of real-life language use in its true sense along with the employment of real-world

criteria in rating an examinee's performance. In a similar vein, Brown (2004) states that listening and speaking should be tested concurrently. Different speaking tests vary in the length and complexity of language production as well as the cognitive load on test-takers' mental capacity. A number of task types that can be deployed to test L2 speaking skills at varying proficiency levels are summarized as follows (adapted from Brown, 2004).

### **Directed-Response Speaking Tasks:**

A test taker usually hears an imperative form or a request to which he/she should respond accordingly. For instance, a respondent hears '*remind me what time it is*' or '*ask her what type of music she likes*'. The test can be taken individually, like in the first example, or with the presence of another test taker (the second example).

### **Read-Aloud Speaking Tasks:**

This technique includes a test taker reading aloud at sentence level up to a paragraph length, to measure the pronunciation and fluency of speech. Brown (2004) asserts that reading aloud is not authentic, nor is it communicative/pragmatic as stipulated by real language use.

### **Dialogue-Completion Speaking Tasks:**

The respondent usually reads or hears a part of a dialogue based on which they should give an appropriate oral response. In fact, test takers are expected to play the role of an interlocutor and discern the conversational expectations.

### **Picture-Cued Speaking Tasks:**

They involve some sort of information transfer activity. Test takers need to describe a pictorial stimulus or retell the story denoted by a series of pictures. Some speaking tasks such as comparing two pictures, finding similarities or discrepancies, giving opinions or preferences over the content of pictures, etc. can be used.

### **Responsive Speaking Tasks:**

They are question-answer interplays, consisting of brief interactions with an interlocutor or interviewer. For instance, a test taker hears '*where's an interesting tourist spot in your city?*' or '*how do you access emails on your phone?*'

### **Paraphrasing Speaking Tasks:**

A test taker hears a short story, anecdote, phone message, etc. and then reproduces the aural stimulus in their own words orally. The paraphrasing technique integrates listening and speaking.

### **Interactive Tests of Speaking:**

They cover activities such as interviews, role plays, discussions, games, and the like, which are longer

and more interpersonal in nature. The accuracy of pronunciation and grammar, vocabulary use, fluency, pragmatic appropriacy, and task accomplishment are taken into account.

A speaking assessment interview may follow four stages, including warm up (to help the interviewee calm down and feel comfortable), level check (to estimate the interviewee's proficiency level), probe (to explore the interviewee's speaking skills in a rising-difficulty pattern), and finally, wind down (to close the session by asking some easy questions). Interview is said to be authentic and communicative in nature and is claimed to be the most commonplace speaking test format (Fulcher, 2003, p. 79). Brown and Abeywickrama (2018), in turn, suggest the following guidelines about interview as an integrative test of speaking.

- The administrative stages of interview should clearly be defined in advance.
- To increase test validity, the questions must reflect the purposes of assessment.
- Attempts should be made to elicit maximum oral language from each interviewee.
- Any negative effect of the power-derived bias between interviewer and interviewee has to be minimized.
- A set of workable and consistent scoring criteria should be applied by interviewer(s).

Along with interview, role play is another common speaking assessment activity. It can be controlled, guided, or free based on the degree of constraint imposed by the test giver. Fulcher (2003) believes that role plays are more applicable to job-related speaking tests where test takers are required to show how well they can co-construct discourse in use. Such tests as interview and role play are more authentic and thus complex, which demand more creativity on the part of test takers. Discussion and Conversation are two of the other authentic and pragmatic speaking test tasks in which spontaneity and the negotiation of meaning are central. Some capabilities such as topic nomination, idea clarification/paraphrasing, and meaning negotiation are central to succeeding in discussions and conversations. Extensive speaking tests, in turn, are relatively long, complex, and mainly monologic. They encompass activities such as oral lectures, presentations, storytelling, news reciting, etc., where both the speech content and how of delivery are important (Brown, 2004).

Bachman and Palmer (1996) define a test task as an activity during which test takers must use the target language to accomplish the task in a perceived situation. They also underscore target language use domain as the baseline to design L2 speaking test tasks for authenticity, validity, and generalizability purposes. As for authenticity, it seems very difficult to truly match

speaking test tasks to the real-world activities. Given this, it should be remembered that authenticity in language testing is not merely copying some real-life topics and tasks for the purpose of assessment. An important issue pertains to the form of prompt-delivery whilst eliciting respondents' oral performance, which directly impacts authenticity. Fulcher (2003, p. 57) presents the following dimensions of speaking test tasks to characterize how they calibrate the construct in focus.

- **Task orientation:** It relates to test-takers' responses, which can be open, closed, or guided. Task orientation centers on how much flexibility is offered to examinees.
- **Interactional relationship:** This feature ranges from no interaction to one-way, two-way, and even multi-way interaction between individuals during an assessment task.
- **Goal orientation:** It depends on the degree of communication involved. In computer-mediated speaking tests, a truly communicative (divergent) goal orientation is hardly achieved. Therefore, such tests seem to be convergent, where the interaction is not genuinely communicative.
- **Interlocutor status and familiarity:** They refer to the presence of a real interlocutor with whom a test taker is supposed to interact.
- **Topic and Situation:** The two factors directly affect the content and orientation of a speaking task.

A frequently-cited technique for testing L2 speaking is through pictorial prompts, where respondents should produce a narrative discourse. Test takers are usually given some preparation time to study the picture(s) and get ready for their oral production. Picture-based speaking tests are categorized under guided tasks, which assess individuals' ability to recount events and control time markers. A more complex speaking task of this category might be where a diagram is shown to the test taker and then he/she is asked to verbalize the information visually presented. The use of pictures, graphs, and maps in tests of speaking is favored because the amount of linguistic data needed to be presented to test takers is decreased.

In assessing L2 speaking, information gap activities provide a testing context where test takers can genuinely communicate (Fulcher, 2003). Unlike interviews where respondents are mainly set to give answers, the information-gap tasks offer examinees chances to ask questions as well. Discussion is another task type utilized for L2 speaking assessment. This technique is claimed to be the most natural among the speaking test formats (Fulcher, 2003, p. 85). The naturalness stems from the fact that discussing an issue is a common real-life activity, where a variety of competences can be measured. An operational example

of this test type can be seen in *University of Cambridge Certificate in English Language Skills*. In this test, a topic embedded in a sentence or short paragraph is presented to the test takers to give their opinions and discuss their viewpoints. Luoma (2004) distinguishes between construct-based and task-based views of oral language assessment. The former needs to meet the prerequisite condition that a test must reflect the non-assessment uses of language. The latter, however, necessitates using tasks that reflect the target language use domain (Bachman & Palmer, 2010). Concerned with the assessment of L2 speaking, Brown and Abeywickrama (2018) emphasize that listening and speaking should be integrated in assessment to look more realistic. They contend it is hard to construct speaking test tasks separated from listening comprehension.

Reviewing some leading international tests of English global proficiency such as Pearson Test of English (PTE), Duolingo, IELTS, and TOEFL iBT reveals a number of tasks exploited to assess test-takers' speaking skills. For instance, reading aloud a short text or a few sentences is used to measure L2 pronunciation, fluency, and comprehensibility. Image description is another speaking assessment task, where examinees should describe one or a few related pictures in terms of the visual content presented. In an integrative manner, several speaking tests require test takers to reproduce an aural (and/or written) prompt while sticking to its main ideas and details. PTE, Duolingo, and TOEFL iBT often exploit such a technique in their speaking subtest. General proficiency tests also elicit personal preferences

of examinees for speaking purposes. In this category, agreement/disagreement questions on general and familiar topics are usually asked. IELTS, TOEFL, and Duolingo are among the tests that comprise such speaking items. Although it is not much frequent in proficiency tests, two-way interaction and discussion are sometimes administered to measure more elaborate speaking skills and how well a test taker can argue or reason over a specific topic. As for the subjects selected for speaking assessment, global proficiency tests mostly rely on personal/familial, social, campus-related, cultural/historical, and scientific/technological topics. Those tests that are basically academic (e.g., TOEFL iBT) concentrate on such academic/scientific topics more.

Second language speakers' oral production in the global proficiency tests is basically rated according to a number of main criteria such as organizational and functional/pragmatic features. They mostly include grammatical accuracy and complexity, lexical diversity and sophistication, response length and relevance, as well as pronunciation accuracy and oral fluency. Rate of delivery, which accounts for the speed of production, is another scoring criterion. In addition, coherence, appropriate use of cohesive ties and discourse markers, logical sequence of ideas, overall comprehensibility and intelligibility of discussions are influential. Regarding integrated speaking tasks, raters take into account the content accuracy and completeness, which represent the prompting aural and textual content.

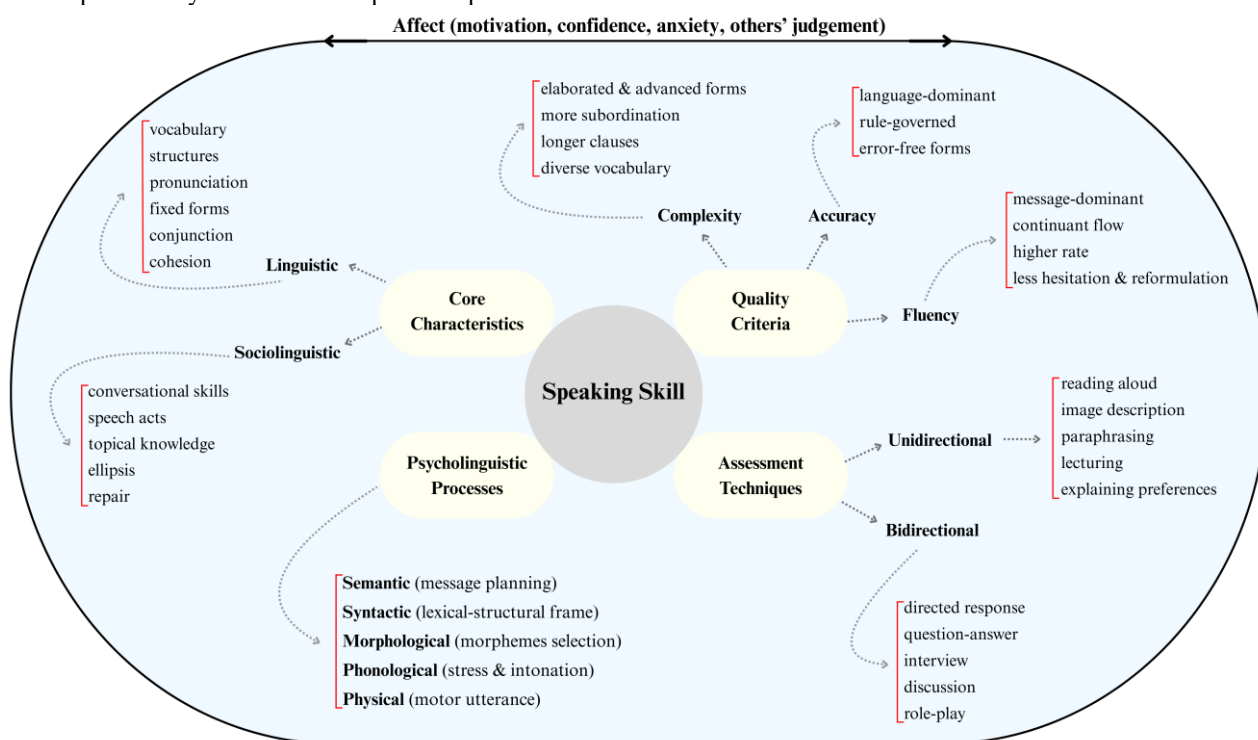


Figure 1: Summary of the Speaking Skill Review from Four Perspectives

## 6. CONCLUDING REMARKS

Successful language acquisition is usually represented by the ability to accomplish interactive oral discourse (Brown & Lee, 2015; Harmer, 2015), where speaking functions more significantly due to its active role. The reviewed dimensions of spoken language indicate this macro skill necessitates a good mastery of both the core linguistic knowledge as well as strategies and competences of operationalizing that knowledge in an appropriate manner regarding the context of use. The psycholinguistic mechanisms of speaking and macro societal determinants should be considered too. The created graphic model (Figure 1) depicts a succinct summary of the speaking components from four perspectives. As can be seen, the affective elements dynamically influence an individual's oral language achievement.

Aiming to foster L2 speaking for any objective, the practice-makes-perfect principle should be at the forefront of all priorities set by teachers and learners. Those mainly collaborative tasks and activities detailed in this study, as spotlighted by salient experts, can be highly impactful on speaking mastery. Besides, the cutting-edge technologies, applications, multimedia facilities, and the artificial intelligence are believed to be practically effective and efficient (Chapelle & Sauro, 2017).

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