

## Chapter 2

# Certain Theoretical Concepts in SLA Research on Speech and Writing

**Abstract** This chapter provides an overview of literature on SLA research. Certain theoretical notions—competence and performance, learning and acquisition, language deployment, input and information processing—which are relevant for both spoken and written tasks are discussed. Concepts related to speech production in the studies on spoken output—concept of fluency, role of imitation, speech production in first language, errors and self-monitoring, utterance initiation in a second language, prefabricated language—are revisited. The studies on written output focus in detail on various methods studied from the input and information-processing perspective. It also portrays the international and national scenarios in the field of applied linguistics and language teaching. Mixed ability classes are discussed in the backdrop of the Indian ELT scenario.

**Keywords** Error frequency • Errors and self-monitoring • Fluency strategy • Input • Intake • Output and input processing (model)

## 2.1 Introduction

Chapter 1 introduced the basic concepts in SLA, which are a prerequisite to the empirical studies reported in this book. Furthermore, an introduction to the context of SLA including the relationship between the learner and the teacher, as well as the learner and the text was also discussed. Continuing with the same theme, this chapter provides an overview of literature on the SLA research. Certain theoretical concepts related to speech production in the studies on spoken output—concept of fluency, role of imitation, speech production in first language, errors and self-monitoring, utterance initiation in a second language, prefabricated language—are revisited. An overview of the studies on written output focus in detail on various methods studied from the input and information-processing perspective. The discussion is presented in three sections. Section 2.2 is devoted to some basic concepts in the studies on both spoken and written outputs, whereas the second section is devoted solely to spoken output and the third section is devoted to written output. In

Sect. 2.2, the discussion begins with four related sets of ideas about language acquisition, those of Noam Chomsky and John Macnamara for L1 and S.D. Krashen and N.S. Prabhu for L2. According to Chomsky (1959, 1965), language is species-specific, and language learning occurs when the language acquisition device (LAD), or *faculte de langage*, of a child is activated when it has to cope with the primary linguistic data presented to it. Further, according to Macnamara (1973), a language acquisition device is initiated by the child determining, independent of language, the meaning which a speaker intends to convey to it, and then working out the relationship between the meaning and the expression it hears. Language acquisition comes, then, from the child's need to understand and express itself.

Two closely related views on second language acquisition are those of Krashen and Prabhu. Krashen's (1985) input hypothesis claims that humans acquire language in only one way—by understanding messages or by receiving “comprehensible input”. Krashen makes a difference between “learning” (a conscious process that results in knowing about a language) and “acquisition” (the subconscious internalization of a language system). Based on this distinction, Krashen posits the monitor hypothesis that acquired competence is utilized for utterance initiation, while learning (conscious knowledge) serves only as an editor or monitor (i.e. given time, focus on form and explicit knowledge of the rule concerned).

According to Prabhu (1987), second language acquisition occurs subconsciously when the learner is involved in “meaning-focused activity”. Jayaseelan (1996) gives a convincing argument that structures need not be learned. Structures come out from the meanings of words following completely universal principles embodied in the LAD.

In Sect. 2.2 certain theoretical notions related to both spoken and written tasks are discussed. Important aspects such as competence and performance, learning and acquisition, language deployment, input and information processing which are relevant for both spoken and written tasks are discussed. The overlap between the two is inevitable because some of the theoretical concepts arising out of first language acquisition research are pertaining to acquisition research without any specific reference to the spoken or the written output. In addition to these concepts, the spoken and written tasks have some characteristic features. Though there are a few overlaps, but for the sake of clarity, we further present them under two separate headings. Input and information, for example, are important for both spoken and written performance, but the studies concerning the processing of input and information conducted on spoken tasks are few so they are revisited in the separate section of written tasks.

In the second Sect. 2.3 *Studies on Spoken Output* fluency, role for imitation in learning to speak, speech production in first language, errors and self-monitoring, utterance initiation in a second language and prefabricated language are discussed.

The third Sect. 2.4 *Studies on Written Output* notes that studies on written output have either focused only on input or output per se. There have been:

- (a) Output studies: error analysis (Corder 1967); contrastive analysis (1940s–1950s); study of interlanguage (Selinker 1972); routines and patterns or formulaic expressions (Brown, Scarcella—1970s); lexical phrases and collocations (Ellis—1990s); word formation techniques (vocabulary studies); learner strategies (1990s); individual differences (Skehan—1990s) based on performance; learner language studies (Ellis 2005b), and so on.
- (b) Input studies: The role of comprehensible input in SLA (Krashen 1985) and the role of comprehensible output in SLA (Swain 1985) where the output is also the input for SLA have been studied intensively.

## 2.2 Certain Theoretical Notions Related to Language Production

### 2.2.1 *Competence and Performance*

In his *Aspects of the Theory of Syntax*, Chomsky (1965, p. 4) made a distinction between competence and performance. Competence was defined as “the speaker-hearer’s knowledge of his language”. Performance was defined as “the actual use of language in concrete situations”. Performance could not directly reflect competence, for a record of natural speech would show “numerous false starts, deviations from rules, changes of plan in mid-course and so on” Chomsky (1965, p. 4). The problem was to determine, from the data of performance, the underlying system of rules that had been mastered by the speaker—hearer, which constituted his “competence” or “knowledge of the language”. The competence-performance distinction is crucial to our argument. The data for the study is second language performance data. It has been hypothesized that the speakers rely not only on their competence, i.e. internalized linguistic ability in the language, but also on other mental faculties like memory and consciously learnt rules of language. Crucially, then, performance in the data is an even more indirect reflection of competence than in the native speaker.

### 2.2.2 *Distinctions Similar to the Learning—Acquisition Distinction*

The learning–acquisition distinction has been the foundation for research in second language acquisition. There have been different distinctions made which are similar in spirit to the learning–acquisition distinction. Krashen (1979) himself has drawn attention to three other versions of the distinction, and Brumfit (1984) adds two other versions (his own and Rivers’) as depicted in Table 2.1.

**Table 2.1** Learning and acquisition-type distinctions

|   | I                                           | II                                                                                     |
|---|---------------------------------------------|----------------------------------------------------------------------------------------|
| a | Mechanisms that guide automatic performance | Mechanisms that guide puzzle or problem-solving performance (Lawler and Selinker 1971) |
| b | Skill using                                 | Skill getting (Rivers 1972)                                                            |
| c | Acquisition                                 | Learning (Krashen 1976)                                                                |
| d | Implicit knowledge                          | Explicit knowledge (Bialystok and Frohlich 1977)                                       |
| e | Expression rules                            | Reference rules (Widdowson 1978)                                                       |
| f | Fluency                                     | Accuracy (Brumfit 1979)                                                                |

Source Brumfit (1984, p. 37)

We may view the terms or descriptions in Column I as pertaining to the creation of meaning and being utterance-based, and those in Column II to the creation of the language forms and being sentence-based.

### 2.2.3 *Language Deployment*

In *Second Language Pedagogy*, Prabhu (1987) presents the notion of language deployment. In normal language use, the user's conscious mind is occupied with the meaning content that is being exchanged, an internal linguistic competence is operating simultaneously at an unconscious level, ensuring conformity to grammatical norms. The formal learning of language in school produces a child who can use his knowledge of the language to pass in the examination, i.e. to answer form-centred questions, but is unable to use it for communication. The notion of deployment is to be related to the notion of utterance initiation, and the distinction Krashen makes has to be related to the learning-acquisition distinction.

### 2.2.4 *Input Processing*

There are, comparatively, very few studies on input processing as such. Bill Van Patten (theory of SLA with focus on input processing where he makes a distinction between "meaning" vs. "form" focus of learners); Peter Skehan (through task performance studies from various perspectives); Allen Bialystok (in the area of input processing in bilinguals); and Nick Ellis (on vocabulary acquisition processing studies and sequencing in SLA) are some of the few SLA researchers who have contributed a lot to this field of research.

### 2.2.5 *Information Processing*

Information-processing ability refers to how the individual deals with incoming information and it is a function of past experience and the characteristics of the input. What is at issue here is how information is organized, so that it can be utilized in short-term (working) memory and transferred into long-term storage.

## 2.3 *Studies on Spoken Output*

### 2.3.1 *The Concept of Fluency*

The notion of fluency as understood by Fillmore (1979, pp. 85–101), Leeson (1975) and Brumfit (1984) are presented. The discussion begins with Brumfit's summary of Fillmore's approach in which four kinds of fluency are distinguished. According to Brumfit, Fillmore describes the first type of fluency as "the ability to fill time with talk", wherein the quality is not so important as the quantity. The second type pertains to "the ability to talk in coherent, reasoned and "semantically dense" sentences"; the third type being "the ability to have appropriate things to say in a wide range of contexts" and the fourth type as "the ability to be 'creative and imaginative' in ... language use" (Brumfit 1984, pp. 53–54).

The four kinds of fluency that Fillmore discusses also refer to four levels of ability (both cognitive and linguistic). The sources of differences in fluency according to Fillmore arise out of three kinds of knowledge. First, there is simply the speaker's knowledge of fixed linguistic forms, represented as the size and character of the speaker's repertoire of morphemes, words, idioms and fixed phrases. Knowledge of these units means knowledge of not only their phonetic or graphic form, but also their meanings and their contexts of appropriate use. Second is the speaker's knowledge of various kinds of formulaic expressions—clichés, proverbs, greetings and leave-taking and other politeness formulae. Third is the speaker's control of a number of processes for creating new expressions. This knowledge of language on the part of the learners includes: (a) ability to form new terms out of the word-forming resources of their language and (b) knowledge of the appropriateness of particular words, forms, syntactic constructions, etc., to particular kinds of settings.

A third view of fluency is that of Leeson (1975). Leeson defines fluency as the "ability of the speaker to produce indefinitely many sentences conforming to the phonological, syntactic, and semantic exigencies of a given natural language on the basis of a finite exposure to a finite corpus of that language." Leeson (1975 p. 136). On this definition, fluency in performance arises out of the linguistic competence of the speaker. Thus, "the imperfections in performance", he stresses, "are not those that detract from the fundamental requirements of the linguistic code". This is very close to the Chomskyan concept of performance, and its relation to competence; all

errors are errors of fatigue, inattention and other such factors extrinsic to linguistic competence.

However, Leeson's model is not a model totally inappropriate for the description of fluency in non-native speakers. For example, he provides for the possibility that some performers may have a specific local accent and can depend on a restricted vocabulary committing errors in grammar too. He further defends by saying that not a single possibility out of those that he had mentioned debars anyone from the right to be addressed as fluent speaker in the aforesaid language. In fact, he says, the crucial factors lie in the speed, syntactic manipulative skills, and a broad respect for the key discriminative cues of the phonological system; and a mastery of what might be termed the basic vocabulary of their particular society.

Finally, for Brumfit (1984), fluency is a methodological notion. Brumfit makes a distinction between accuracy-focused activity and fluency-focused activity in the language classroom. This distinction is essentially that of Krashen's "form-focused" and "communicative" tasks, and offers no further insights into the notion of fluency as we understand it.

### 2.3.2 *A Possible Role for Imitation in Learning to Speak*

Speidel (1989, pp. 151–174) in a study of the role of imitation in language learning, argues that one type of imitation viz., deferred imitation, is a "bootstrap" for learning to speak. To understand the nature and role of what is called "borrowed" language in the data, which we see as involving fundamentally an imitative behaviour, there will be a brief digression to make a few points about the nature and role of imitation in first language learning.

In the chapter entitled "Imitation: A Bootstrap for Learning to Speak?" of her book *The Many Faces of Imitation in Language Learning*, Speidel (1989) speculates about the patterns of neural activation during imitation. Language learning, it is suggested, consists of the development of three separate types of neural networks (p. 153), and their progressive integration with one another:

- i. The incoming speech-sound network: this network records and integrates the sounds of speech.
- ii. Meaning networks: these networks consist of the representations of the many non-speech-sound events—visual, kinaesthetic, tactile, and olfactory, as well as auditory.
- iii. Speech-planning network: for the movements required in speech. The planning network organizes the sequence and temporal spacing of activation of the neurons innervating the many muscles in the vocal tract active during speaking.

In this model, the development of comprehension of language is seen as the development of an incoming speech-sound network and its integration with

meaning networks active at the same time. Speech development, on the other hand, is seen as the development of a speech-planning network and its integration with the meaning networks. The development of the speech-planning network is thought to be guided by activity in the incoming speech-sound network.

Speidel (1989, p. 159) suggests that during verbal imitation, there are different patterns of activation possible:

- i. Partial activation of the speech-planning network (by the incoming speech-sound network). This is the precursor to the speech.
- ii. Immediate self-selected (meaningful) imitation, wherein the speech-planning network is activated not only by the incoming speech-sound network (cf. [i.] above), but (in addition) by the meaning network.
- iii. Immediate rote imitation: In this, units in the incoming speech-sound network activate units in the speech-planning network, without activation of the corresponding units in the meaning network. The result is parroting. This form of imitation occurs when a child is asked to repeat something and does so without understanding or reflection. Although rote imitation can result in the learning of word strings and may even yield a sense of syntactic structures, it has not been found useful in developing child's ability to express their own thoughts in speech (cf. Speidel 1987).
- iv. Deferred imitation and the road to spontaneous speech: Here the meaning and the speech-planning networks are both active, as in spontaneous speech. Deferred imitation is a form of imitation in which the model has not occurred recently. Speidel suggests that there is a difference (somewhat artificial) between productive spontaneous speech and deferred imitation, in terms of the size and flexibility of the mappings of units between the meaning and the speech-planning networks: In adult spontaneous, "productive speech", the mapping is (or appears to be) at the word level, whereas in deferred imitation it is a phrase, or even a whole sentence. For the imitating child, the whole sentence may have the status of a single word. The concept of deferred imitation illustrates the continuum between imitated language and spontaneous speech, and suggests that no clear distinction is possible.
- v. Expanded immediate imitation: Expanded imitation, in which one part of an utterance is imitated and another part is constructed without an immediately preceding model, can be seen as a combination of patterns (ii and iv, i.e. immediate self-selected [meaningful] imitation and deferred imitation). Speidel suggests that imitation helps the language learner by liberating valuable processing space, and reducing the load on long-term memory (since imitated language is assumed to be in working memory). This allows the saved processing capacity to activate further meaning and speech-planning units. In plain words, imitating portions of another's speech allows the learner to make longer utterances.

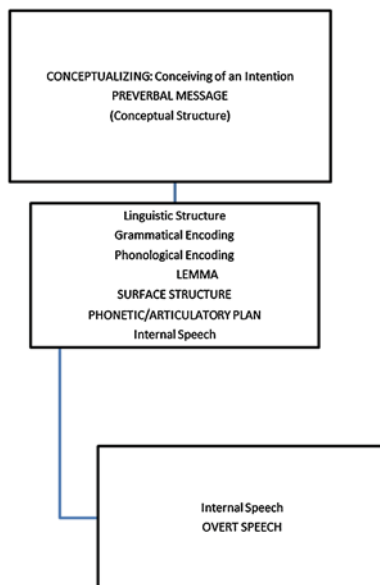
The above discussion of imitation is in the context of first language learning, but it can be hypothesized that it has a similar role in adult second language learning, serving as a bootstrap for learning to speak.

### 2.3.3 *Speech Production in First Language*

The various processes involved in the generation of fluent speech in the first language (Levelt 1989) are depicted in Fig. 2.1. The first stage is that of conceptualizing: conceiving of an intention, selecting the relevant information to be expressed for this purpose, ordering this information for expression, keeping track of what was said before, and so on. The product of conceptualizing is called the preverbal message.

Next, the conceptual structure has to be translated into a linguistic structure. This translation proceeds in two steps. First, there is grammatical encoding of the message. Here sentence structure or syntax must be built up, and words (lexical items) with their meanings as well as syntactic/morphological information must be accessed from the lexicon. Levelt uses the word lemma for the paired syntactic-semantic information stored for each word. For example, the mental lexical entry for “give” has the information about its meaning or sense: an actor causing a possession to go from the actor to the recipient. It also has the (syntactic) information that give is a verb, and that (in one structure) its subject is the actor, its direct object the possession, and its indirect object the recipient (John gave the book to Mary). A lemma is activated when its meaning matches part of the preverbal message. This will make its

**Fig. 2.1** Framework of processing components involved in speech production (Levelt 1989). *Source* Adapted version of Levelt (1989) model



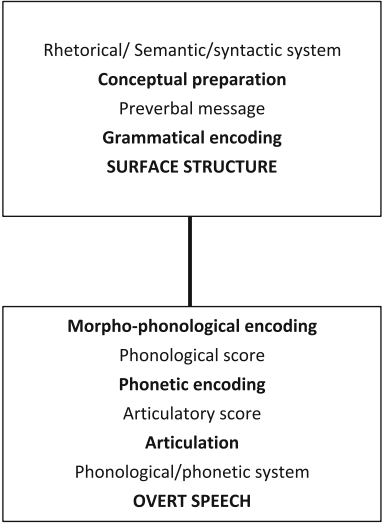


syntax available, which in turn will call or activate certain syntactic building procedures. When, for instance, the lemma give is activated by the conceptual structure of the message, the syntactic category V will call the verb-phrase-building procedure. When all the relevant lemmas have been accessed and all the syntactic building procedures have done their work, the result is a surface structure.

Second, there is phonological encoding. Its function is to retrieve or build the articulatory plan for each lemma, and for utterances as a whole. The major source of information here is lexical information; apart from the lemma information, an item in the lexicon contains information about its morphology, and its phonology—for instance, that dangerous consists of a root (danger) and a suffix (-ous), that it contains three syllables of which the first has the accent, and its first segment is (d). The result of phonological encoding is a phonetic or articulatory plan. It is not yet overt speech; it is an internal representation of how the planned utterance should be articulated—a programme for articulation. This representation can be called internal speech. The product of articulation is overt speech.

The 1999 model as depicted in Fig. 2.2 is more elaborate and provides finer details. Hagoort and Levelt (2009) discuss with empirical evidence that the recordings of electrical activity in the human brain reveal “the fine-tuned, stepwise neuronal processing of language and speech” (p. 372).

**Fig. 2.2** Framework of processing components involved in speech production (Levelt 1999). *Source* Adapted version of Levelt (1999) model



### 2.3.4 Errors and Self-Monitoring

A speaker can attend to his own internal speech as in the following self-correction cited by Levelt (1989, p. 13)<sup>1</sup>:

*To the left side of the purple disc is a V—a horizontal line.*

The speaker here has intercepted articulation of the word “vertical” at its very start.

As the example shows, speakers can self-monitor for meaning. They can also self-monitor for exactness of expression or expressing meaning appropriately in discourse as in the example below:

*To the right is yellow, and to the right—further to the right is blue.*

Of particular interest to us are three kinds of self-monitoring: for lexical error, syntax and morphology and phonology. The most frequently caught error of formulation is the lexical error. We have already seen a potential example above. Below we have another example:

*Left to pink—er... straight to pink.*

In another example, the speaker has noticed an error of agreement and corrected it:

*What things are this kid—is this kid going to say incorrectly?*

Below, the speaker has corrected an ordering error:

*Why it is—why is it that nobody makes a decent toilet seat?*

Trouble in phonological encoding is often recognized by speakers, as is apparent from spontaneous repairs. Given below are examples of segmental and supra-segmental phonological trouble that was apparently quickly noticed by the speaker.

*A unat—unit from the yellow dot.  
... from my prOsodic—prosodic colleagues.*

There is also some minimal evidence that speakers monitor their speech delivery for parameters of speed, loudness, precision and fluency, but it does not stem from spontaneous self-correction. There is some experimental evidence for self-monitoring of loudness. Speakers immediately increase the loudness of their speech when it gets masked by loud noise. (We wish to add that they might also deliberately lower their voice, as some of our participants have done, when they are unsure of the words they are saying.)

The interesting question is how much spontaneous self-monitoring is “normal”. There is evidence that much production trouble is not noticed by the speaker, that contextual factors determine which aspects of speech will be given most scrutiny by

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<sup>1</sup>All the examples in this section are from Levelt (1989).

the speaker, and that a speaker's degree of attention for monitoring fluctuates in the course of an utterance.

Levelt (1995) presents the results of the data analysis of 1,000 spontaneous self-corrections. He concludes that there are "essentially three phases in the process of self-monitoring" (1995, p. 22).

a. Halting process: The types of troubles that make the speakers are largely of two kinds:

i. An all-out error:

*left to pink—er... straight to pink*

Here the subject made an error of lexical selection—*left* instead of *straight*

ii. An inappropriateness of sorts

The speaker feels that further specification is necessary, as in

*To the right is yellow, and to the right—further to the right is blue.*

Halting is done right upon detecting the trouble, and this can be in the middle of a word. There is no tendency to safeguard the integrity of syntax in self-interruption, the break can be made anywhere in the sentence. But detecting can be slow, and the speaker will then stop at one or more syllables after the trouble spot, as in

*And from green left to pink—er... from blue left to pink, where green is the error.*

b. Editing phase

After halting speakers often use specific editing terms, such as *er...* to signal that trouble is on. It turned out that the editing term depends on the kind of trouble. Errors are mostly followed by terms such as *no*, *or*, and *sorry*, whereas appropriateness trouble is predominantly signalled by terms such as *rather* or *that is*.

c. Restart phase

Where self-interruption fully ignores syntax, restarting is syntactically highly principled. Original utterance and repair relate in some way as two conjuncts in a syntactic co-ordination.

*Is the nurse—the doctor interviewing patients?* is a normal well-formed repair, and so is the corresponding co-ordination *Is the nurse or the doctor interviewing patients?*

But *Is the doctor seeing—the doctor interviewing patients?* sounds ill-formed, and so does the corresponding co-ordination *Is the doctor interviewing patients?*

Notice that the repairs proper are the same in the two examples (*the doctor interviewing patients*). The crucial point is that the repair should syntactically fit the interrupted utterance. Apparently, in making a self-repair, the speaker keeps the interrupted syntax in abeyance and grafts the correction onto it. This is, no doubt, the reason it is so often possible to "splice away" self-corrections in recorded speech, a well-known practice in the broadcasting business.

Levelt (1999) argues that self-monitoring involves an external loop, taking as input the acoustic speech signal of the speaker's own voice, and an internal loop, taking as input the phonological score—i.e. the output of phonological encoding. The most economical assumption is that both loops enter the processing pathway

that is used for normal speech comprehension. Levelt (2009) argues that recordings of electrical activity in the human brain reveal the fine-tuned, stepwise neuronal processing of language and speech.

We conclude with a brief overview of performance errors typical in native speaker speech, like exchanges and Malapropisms (errors in the phonological encoding process), blends, substitutions and exchange of words (errors due to derailments in the retrieval of lemmas) and ordering errors in native speech.

An example of an exchange (Levelt 1989, p. 346) is the following:

*a but gusting meal (a gut busting meal)*

A Malapropism is the “replacement of a word by another existing word that is related in form but not in meaning. Two lemmas are retrieved, which compete for the same syntactic slot” (Levelt 1989, p. 355). Malapropisms in native speaker speech could be genuine speech errors, or errors due to lexical ignorance of the speaker.<sup>2</sup> We have treated the malapropisms in our data as lexical errors, rather than errors of phonological encoding: i.e. we attribute the error to the lexical ignorance of the speaker, for obvious reasons.

In a word blend, “two words are fused into one” (p. 215): two lemmas are retrieved, which compete for the same syntactic slot. The two words are roughly equivalent in meaning in the context of the message as a whole. In our data, we found one instance of a word blend.

Word substitutions are caused mainly by word association, i.e. direct associative connections between lemmas (Levelt 1989, p. 218). Some examples are:

He’s a high-low grader (low-high)

Don’t burn your toes (fingers-toes)

Word exchanges result from “different message fragments being active at the same time” (Levelt 1989, p. 221). In word exchanges, it is no more than accidentally the case that the two words are close associates. They typically express different concepts that are both about to be formulated, mostly as parts of the same sentence.

Examples:

Well you can cut rain in the trees (rain-trees)

This spring has a seat in it (spring-seat)

There are also ordering errors (Levelt 1989, pp. 254, 255):

I wonder how can she tell.

(I wonder how she can tell) (Fay 1980)

Linda, do you talk on the telephone with which ear?

(Linda, with which ear do you talk on the telephone?)

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<sup>2</sup>Malapropism comes from the character Mrs Malaprop in R.B. Sheridan’s play *The Rivals* (1775), who frequently uses words that sound similar to one she intends but don’t have the same meaning, e.g. allegory and alligator. The name itself is derived from the French phrase, *mal à propos*, which means poorly placed.

We have some evidence that native speakers, upon detecting the trouble (error), interrupt the sentence and restart it. Not all repairs are neatly made stop-and-restart operations. Speakers can preserve fluency by repairing “on the fly”, but usually at the expense of syntactic well-formedness.

### 2.3.4.1 Utterance Initiation in a Second Language

It was said that only the acquired system is capable of initiating utterances in Krashen’s model: the learnt system acts only as a monitor. Strictly, this implies that there is no performance without acquisition. But obviously, there are always contexts where performance is required of speakers whose acquired grammar is incomplete, or inadequate; this is true of first language performance, and perhaps even more so of second language performance. It is thus acknowledged that speech performance in a second language has sources other than acquired grammar; that in fact there are three different sources for speech in a second language (Krashen 1981, p. 111). The problem for the researcher is to identify and disentangle these various sources of performance from the data obtained.

First, a performer may simply utilize his acquired system to initiate utterances, as he does in the case of his first language. But normally, performance using the acquired system does not emerge right away. Comprehension precedes production: children acquiring second languages typically exhibit a “silent period” during which acquired competence is built up via active listening, via intake; this period may last several months.

Performers have two alternative means for “outperforming their acquired competence”, however. One is the use of prefabricated patterns and routines, sentences that are memorized wholes (routines such as “what’s your name?” “How are you?”) or partially memorized wholes (patterns with an open “slot” for a word or phrase such as “Down with...” or “That’s a...”). Another is to produce utterances in a second language by relying on the surface structure of the first language; and to attempt to make changes/corrections using the conscious grammar, the Monitor.

This attempt to outperform one’s competence is the source of what had been earlier termed “first language interference”, in the current view. According to Newmark (1966), the second-language performer may “fall back” on his first language when he wishes to produce an utterance, but has not acquired enough of the second language to do so. In terms of the Monitor Model, the performer uses the first language as a substitute utterance initiator. The claim is that we see first language influence just where and when it would be expected, in structures that tend to be acquired rather than learned, and in situations where early production is valued and in which acquisition opportunities are lacking. Using the first language, like the use of routines and patterns, is thus a way of performing without acquired competence. While both of these methods are “unnatural”, in a sense, when students are

in a situation where early production is absolutely necessary, one certainly cannot object to the use of this mode.

### 2.3.5 *Prefabricated Language*

Prefabricated language basically includes routines and patterns. Routines are “whole utterances that are unusually error free and show no transitional stages of development or systematic order of acquisition” (Krashen et al. 1982, p. 232). They are learned as unanalysed wholes, much as one learns a single word, and produced on certain occasions, such as “How are you?” as greeting, or “It’s my turn!” in a game. (In the data, routines like respected madam and dear friends, thank you and others were found.) The learner usually needs routines to participate in games or social events and therefore, even if their syntactic structure is far beyond the learner’s linguistic ability, they can be learned through rote memorization.

Patterns are “utterances that are only partially analyzed” (Krashen et al. 1982, p. 233). They include an open slot for a word or phrase such as That’s a ... or Do you want ...? The unanalysed portions of the patterns are, like routines, beyond the linguistic ability of the learner, showing no stages of development or acquisition order. It has been suggested that learners use them because they are heard with unusually high frequency, sometimes resulting in problems of segmentation. For example, if one constantly hears That’s a ... and rarely hears that (without the’s), one might reasonably assume that “that’s” is a single word. It is not uncommon to hear utterances like that’s is mine from learners. (In our data we observed patterns —partial clichés like I would like to ..., As all our friends have [verb], and others).

While it is widely acknowledged that routines and patterns have their source in mental systems other than those of acquired linguistic competence, it is still a matter of some debate whether routines and patterns are in fact inputs to, and analysed by, the LAD (cf. Brown 1973; Dore 1974) (cf. Krashen 1981, pp. 86–89). Scarcella and Krashen (1978) claim that the development of patterns and routines is a process that is quite independent of normal language acquisition.

Both first and second language learners use routines and patterns, but second language learners appear to be more prone to using them as communicative devices. Second language learners not only have a greater capacity for learning routines and patterns (due to longer memory spans and greater cognitive maturity), but they may have a greater need for them because they must function in real-life situations that demand early use of the target language.

A number of different second language researchers have provided evidence for routines and patterns. Hatch (1972, cf. Krashen 1981, p. 90) describes the case history of Paul, a 4-year-old Chinese speaker learning English in an informal environment, interacting with American children in school and on the playground.

During the first month, “It seemed as if Paul were learning by imitation.” “Propositional speech appeared in the second month and looked quite similar to the

“Analytic” speech one generally sees in descriptions of child first language acquisition. Some typically analytic sentences included:

*This kite*

*Ball no*

*Paper this*

*Wash hand?*

At the same time, Paul was using complex routines such as

*Get out of here*

*It's time to eat and drink*

which he had learned by imitation. Hatch summarizes the situation as two different strategies running simultaneously.<sup>3</sup>

In another case history, Hakuta (1974, cf. Krashen 1981, p. 91) reported on the linguistic development of Uguisu, a Japanese-speaking 5-year-old acquiring English in informal situations in the United States. Hakuta reports that he found evidence of “learning through rote memorization of segments of speech without knowledge of the internal structure of those speech segments.” Fillmore (1976, cf. Krashen 1981, p. 93) studied the speech produced by five Spanish-speaking children in a kindergarten in the USA and observed that the children used routines and patterns very early and very heavily. She calculated that their use ranged from about half to nearly all of the total number of utterances at the early stages in the school setting. As the children progressed, reliance on routines and patterns dropped to a low of 37 % in the most advanced child at the end of the year. Fillmore suggested that the linguistic environment of the classroom and playground was conducive to the learning of routines and patterns. Although a statistical analysis along these lines was not done, Fillmore’s estimate about the proportion of routine utterances appears quite close to that in the data of this study.

According to Krashen (1981), the use of routines and patterns in adults is reported in only one study by Hanania and Gardman (cf. Krashen 1981, p. 96) who studied the English development of Fatmah, a 19-year-old Arabic speaker living in the United States. Their study suggested that there may be a general similarity between adult and child use of routines and patterns as a facilitator of social interaction when productive rules have not yet been acquired.

Krashen et al. (1981) point out the limitations of performing without competence: the use of routines and patterns is restricted as speakers may not have a “line” ready for every situation. Monitor use has many constraints (time, focus on form, nature of the rule concerned, as also individual proclivities). The claim that routines and patterns do not feed into language acquisition has been noted.

Forsberg (2010, pp. 25–51) presents a study on using conventional sequences in L2 French as part of SLA research. By means of phraseological identification method, this study provides a general description of the use of conventional sequences (CSs) in interviews at four different levels of spoken L2 French as in

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<sup>3</sup><http://expandxi.com/2015/04/automatic-speech-in-child-second-language-acquisition/>.

interviews with native speakers. Use of conventional sequence is studied with regard to overall quantity, category distribution, and type frequencies. The most predictive measure is over all quantity, which yields significant differences between several learner levels. It is also found that lexical CSs are the most difficult to acquire for second language speakers, only the most advanced group use them to the same extent as native speakers. No significant differences are found between the most advanced group of L2 speakers (LOR in France >5 years) and native speakers, probably due to the measures and the task investigated. The results are then related to Ellis et al. (2008) suggesting that the sequences' frequencies of occurrence versus their MI score in a larger corpus might influence their acquisition and use.

Forsberg (2010, p. 26) argues that "the conventional character of language and the importance of non-generated language have been recognized over the last two decades, mainly due to the advent of corpus linguistics, which has allowed for the patterned character of language to come to light." Further, Forsberg (p. 28) presents an argument to support the choice of terminology "Conventional Sequence" as opposed to "formulaic language". Bardovi-Harliq and Edmonds (2008) argue that Wray's (2002) definition of formulaic language/sequences implies that the sequence in question is stored and retrieved holistically. However, as they point out, very few studies actually investigate the psycholinguistic reality of these sequences. Therefore, they propose a distinction between formulaic and conventional.

Edmonds (2008) analysed speed of reading for a number of frequent pragmatic expressions in French in her study. Only the sequences showing processing benefits can, according to Edmonds, be labelled as formulaic. Other expressions, as idiomatic and frequent they may appear, are merely called conventional expressions. This latter term is useful for the study by Forsberg since no psycholinguistic measures are used: it is a study on how conventional sequences—the preferred choices of combination of words of a speech community—are used by L2 speakers and native speakers.

Bardovi-Harliq and Edmonds (2008) talk about conventional expressions, but Forsberg would like to talk about conventional sequences since not all the sequences that are studied, are "expressions"; but they are often phrases with open slots. Forsberg (2010, p. 29) gives the definition (used in the study) of a conventional sequence (CS) as follows: "A continuous or discontinuous sequence of at least two words where the continuation of the words and/or its function is conventionalized to a particular extent in a speech community".

Further (pp. 35–36) there are three categories of CSs. They are:

a. Lexical CSs:

(i) Clausal/ Propositional: "my name is"; "no problem"; "you never know"

(ii) Phrasal/Denotative: "to feel like"; "practice a sport"; "pose a question"

b. Grammatical CSs: "a little bit"; "in majority"; and "each other"

c. Discursive CSs: "as a matter of fact"; "when it comes to"; "let's say that"



Wei and Lei (2011) study the concept of “lexical bundles”—another form of prefabricated language. Their study “investigated the use of lexical bundles in the academic writing of advanced Chinese EFL learners.” (p. 155). Four-word lexical bundles were studied. “Lexical bundles are considered as extended collocations. They are combinations of words that occur repeatedly with a fairly high frequency in a given register.” (Biber et al. 1999, p. 992, in Wei and Lei 2011, p. 156). Examples: in the present study; on the other day; that is to say; in the process of.

To summarize Sect. 2.3, *Studies of Spoken Output*, language acquisition is the relation between input (linguistic data); intake (what goes into the mind of a learner—through listening); and output (speech produced by a learner). Five views on how language acquisition occurs were presented in this section. First, language acquisition occurs when a learner attempts to process the linguistic data (input) presented to it. Speech performance is only an indirect reflection of the competence of the learner. Second, it comes from the child’s need to understand and express itself. Third, humans acquire language in only one way—by understanding messages, or by receiving “comprehensible input”. Fourth, second language acquisition occurs subconsciously when the learner is involved in “meaning-focused activity”. Finally, the argument that the phrase structures come out from the meanings of words following completely universal principles embodied in the LAD.

Certain concepts related to speech production are: prefabricated language, fluency, deferred imitation, pauses, hesitations, self-monitoring, and errors. There are many reasons for which self-monitoring is done—for change of plan, word order, and error correction.

Speaking in first language involves the major processes of: conceptualizing, grammatical and phonological encoding. Utterance initiation in second language is done by the acquired system. In case the acquired system is not fully developed due to demands of early production, the learner uses: prefabricated language and the surface structure of the first language to outperform his competence. Deferred imitation can be used as a bootstrap for learning to speak in first and second languages. The concept of fluency and fluency strategies need to be studied further in order to understand second language speech production.

## 2.4 Studies on Written Output

Studies on written output have either focused only on input or output per se. There have been (a) Output studies: error analysis (Corder 1967); contrastive analysis (1940s–1950s); study of interlanguage (Selinker 1972); routines and patterns or formulaic expressions (Brown, Scarcella—1970s); lexical phrases and collocations (Ellis—1990s); word formation techniques (vocabulary studies); learner strategies (1990s); individual differences (Skehan—1990s) based on performance; learner language studies (Ellis 2005b), and so on. (b) Input studies: The role of comprehensible input in SLA (Krashen 1985) and the role of comprehensible output in SLA (Swain 1985) where output is also the input for SLA have been studied intensively.

There are, comparatively, very few studies on input processing as such. Bill Van Patten (theory of SLA with focus on input processing where he makes a distinction between “meaning” vs. “form” focus of learners); Peter Skehan (through task performance studies from various perspectives); Allen Bialystok (in the area of input processing in bilinguals); and Nick Ellis (on vocabulary acquisition processing studies and sequencing in SLA) are some of the few SLA researchers who have contributed a lot to this field of research.

## ***2.4.1 SLA Process: Information and Input Processing***

### **2.4.1.1 Information Processing (IP)**

The earliest view on the concept of information processing was by Miller (1956) in his seminal paper on “The magical number seven, plus or minus two: limits on our capacity for processing information”. Regarding what constitutes information, Miller opines that distinction between bits and chunks of information can easily be done. Bits of information required for an absolute judgement almost remains constant (p. 92).

As far as the concept of information processing is concerned, he opines that we are dealing here with a system where there is an organization or bundling together of the input into similar units or chunks (p. 93). He further suggests that as the number of chunks is constant for a span of memory, one can always increase the number of bits of information that is contained in a chunk by creating bigger chunks thus enabling individual chunks to contain more information (p. 93).

Meisel et al. (1981, in Ellis 2005a) advanced the multidimensional model of L2 acquisition. They suggested that those learners who are oriented more towards segregation and compartmentalization would spend more time in “restrictive simplification” even at the cost of accuracy, whereas those learners who are oriented towards integration, blending, and unity might complicate their grammar by following the rules of target language (p. 140). Implicit in this model is the basic underlying assumption that L2 learners find it very difficult to pay equal attention to both message and linguistic form at the same time. It is challenging for them to decide which one to give more attention to (p. 140).

Saville-Troike (2006) discusses various approaches based on information processing and opines that the information-processing approaches are concerned with “the mental processes involved in language learning and use. These include perception and the input of new information; the formation, organization and regulation of internal (mental) representations; and retrieval and output strategies” (p. 73) as depicted in Table 2.2.

An IP model, according to Solso (1988), assumes that cognition comprises a number of stages and at every stage there is some operation which is performed to the incoming information. The final response is the result of different stages and operations, i.e. “perception, coding of information, recall of information from

**Table 2.2** Stages of information processing

| Input      | Central processing                                                               | Output     |
|------------|----------------------------------------------------------------------------------|------------|
| Perception | Controlled—automatic processing; declarative—procedural knowledge; restructuring | Production |

Source Skehan (1998, in Saville-Troike 2006, p. 74)

memory, concept formation, judgment and language production” (pp. 5–6). Processing according to him is the destiny or “fate” of the “perceived information” in the regular information network i.e. coding, transforming, association, storage, recall, and retention (p. 116).

Barry McLaughlin et al. (1983, pp. 135–158) converges views on processing limitations which exist on the way individuals process information to two dimensions: “Focus of Attention” (largely a function of task demands) and “Information—Processing Ability” (largely a function of how the individual deals with the information on the basis of past experience).

As far as focus of attention is concerned, that human beings are selective in focusing attention was pointed out by William James (1890, in Laughlin 1983): According to him, the mind chooses one object or thought out of several possibilities of many objects or multiple thoughts (p. 403). To attend to one thing, James further continues that one needs to withdraw from some things for dealing in an effective manner with others (p. 404).

Information-processing ability refers to how the individual deals with incoming information and it is a function of past experience and the characteristics of the input. What is at issue here is how information is organized so that it can be utilized in short-term (working) memory and transferred into long-term storage.

According to Craik and Lockhart (1972), the factors affecting information processing are:

1. Depth of processing involved: Learners use different strategies to handle input, some of which involve “deeper levels of processing” and result in superior long-term retention.
2. The organization of long-term memory system: either as associative network or hierarchical systems.
3. Degree of attention: Degree of attention depends on practice, rehearsal, and familiarity with the material.

Regarding the routinization of skills: controlled and automatic process, Shiffrin and Schneider (1977, pp. 127–190) have explained the concept of automatic processing as involving the activation of certain nodes in memory every time the appropriate inputs are present. Controlled processing is a temporary activation of nodes in a sequence. This activation is under control of the subject and, since attention is required, only one such sequence can normally be controlled at a time without interference. Controlled processes necessarily intrude on the ability to perform simultaneously any other task that also requires a capacity investment.

Some research findings related to processing a second language are: 1. Automaticity in lexical retrieval (speed of processing); 2. Automaticity in syntactic processing (processing of form); and 3. Automaticity in reading.

### 2.4.1.2 Input Processing

Chaudron (1985) in the context of models and methods for discovering learners' processing of input, clarifies the concept of intake in the following way: "The fundamental characteristic of the conception of the term intake, which distinguishes it from input, is that it identifies the learner as an active agent in acquiring the target language" (p. 2). According to Chaudron, this was evident in the first use of the term by Corder (1967) when he clearly delineated the two and stated that "input is 'what goes in' not what is available for going in, ... it is the learner who controls this input or more properly his intake." (Corder, p. 165 in Chaudron 1985, p. 2). He further stated that the intake is determined by "language acquisition mechanism". It includes "1) the current state of the learner's knowledge of the TL; 2) the procedures, processes and other psychological variables that make up the learner's cognitive apparatus" (Chaudron 1985, p. 2).

Faerch and Kasper (1980) make a further important distinction between intake that is simply reduced and decoded as communication and learning related intake (p. 64, in Chaudron 1985, p. 2). They claim that the latter type, intake as learning, is much more restricted than the former.

Chaudron mentions three stages of information processing:

- The initial stages of perception of input
- The subsequent stages of recording and encoding of the semantic (communicated) information into long-term memory and
- The series of stages of which learners fully integrate and incorporate the linguistic information in input into their developing grammars (Chaudron 1985, p. 2).

Van Patten (1990 in Ellis 2005a, pp. 140–141) asked English-speaking learners to process information in a Spanish listening task under four conditions: (i) attention to meaning alone; (ii) simultaneous attention to meaning and a specific lexical form (*inflacion*) important for understanding the text; (iii) simultaneous attention to meaning and a grammatical functor (the definite article *la*); and (iv) simultaneous attention to meaning and a verb morpheme (-n). The learners' ability to recall the content of the text was highest in (i) and the lowest in (iv) with (ii) and (iii) as intermediate. Van Patten concluded that "conscious attention to form in the input competes with conscious attention to meaning ... only when input is easily understood can learners attend to form as part of the intake process" (Van Patten 1990, p. 296 in Ellis 2005a, p. 141). Van Patten's study was concerned with input-processing "but similar problems have been shown to exist in the case of output-processing" (Ellis 1987, in Ellis 2005a, p. 141).

According to the research study of Varalakshmi (1993), the prefabricated language (routines, patterns and syntax and discourse level chunks) helps an L2 learner to increase fluency as well as reduce the linguistic processing load required for language production for a specific task. Sometimes, prefabrication of linguistic forms is just done to give an impression of fluency.

#### *Van Patten's Theory of Input Processing*

Van Patten's input processing theory draws conscious attention to form versus meaning and as the present study is majorly concerned with input processing his theory becomes vital for discussion. Carrie N. Jackson (2008) discusses the theory of input processing of Van Patten. In his theory of input-processing and its relationship to learners' developing L2 linguistic system, Van Patten (1996, 2004) has advanced several hypotheses to describe the strategies L2 learners use to interpret L2 input. Relying on the idea that learners are limited capacity processors (McLaughlin et al. 1983), Van Patten argues that especially less proficient L2 learners will be selective in how they allocate their attentional resources, choosing to process L2 input: (1) "for meaning before they process it for form" (Van Patten 2004, p. 7 in Jackson 2008, pp. 389–390); (2) In doing so, "learners prefer to process content words over grammatical items, such as inflectional morphology" (Van Patten 2004, p. 9 in Jackson 2008, p. 389); (3) "learners may rely heavily on lexical semantics and the likelihood of a given event occurring in the real world" (Van Patten 2004, pp. 17–19 in Jackson 2008, p. 389); (4) "when learners do utilize grammatical information, they are more likely to pay attention to structures perceived as "more meaningful" than those perceived to be of little communicative value" (Van Patten 2004, p. 10; and in Jackson 2008, p. 390) (5) "learners tend to adopt a subject first strategy, in which they "process the first noun or pronoun in a sentence as the subject or agent" (Van Patten 2004, p. 15 in Jackson 2008, p. 390), even when other morphological information identifies a different entity as the subject of an utterance. Only after they have successfully incorporated other grammatical cues, such as verbal agreement or case markings, into their developing L2 linguistic system, are learners able to attend to such formal features during comprehension.

One premise underlying Van Patten's (1996, 2004 in Jackson 2008, p. 390) model of input processing is Schmidt's (1993, 2001 in Jackson 2008, p. 390) "noticing hypothesis". Schmidt (2001 in Jackson 2008, p. 390) argues that "SLA is largely driven by what learners pay attention to and notice in the target language input and what they understand the significance of noticed input to be" (2001, pp. 3–4 in Jackson 2008, p. 390). With regard to case marking cues in German, the question is whether L2 learners of German recognize the significance of the morphological cue and, in turn, will utilize this information to identify grammatical roles, especially when such information does not play a significant role in their L1.

#### *A Critical Study of Van Patten's Input-Processing Theory and its basic Principles*

Antonio Gragera (2005, pp. 1–6) expressed his views on the input-processing theory of Bill Van Patten. "Current models of language pedagogy (especially with reference to a comprehensive theory of SLA) fall short of offering any linguistic

model that could account for the psychological complexities involved in attention and perception” (p. 1). “The article puts into question (a) the internal validity of the principles stated in Van Patten’s Input Processing Theory, and (b) the assumptions regarding language processing in Van Patten’s language acquisition scheme. The article proposes an alternative scheme that redefines the set of cognitive processes involved in language acquisition and that incorporates the findings of Psychology and Pedagogy” (p. 1).

Principles of Van Patten’s input processing theory:

- a. “the presupposed validity of the separation of form and meaning
- b. the a priori distinction between meaningful and non-meaningful morphology” (p. 1)

Gragera argues that both assumptions imply an understanding of syntax and semantics as separate realms of linguistic knowledge which then guides Van Patten’s entire input processing theory.

- (a) According to Van Patten (1995, p. 173 and 1998, p. 115 in Gragera 2005, p. 1) form and meaning often compete for cognitive resources. In other words, it is the content of the input i.e. the message that the learner first pays attention to and then the form i.e. “how” it has been encoded (Gragera, pp. 1–2). This statement masks the truth that the essential part of the information represented in the words is meaning thus underlining emphasis on the words as well, hinting that words have their own “syntactic environment”. Words do not occur in isolation in the mind of the speaker, rather they exist in relation with other words. As one maps form to meaning new concepts are constantly being integrated in the “language developing system” adhering to the already established code of linguistic information. For second language learners, “this encoding may have two sources of lexical interpretation: speakers either map new entries to meanings developed in the process of L2 acquisition, or to the existing meanings in their L1 system” (p. 2).
- (b) From a universal standpoint of language acquisition some morphological markers are more meaningful than others are (order of acquisition of -ing forms, past tense and third person markers). However, the problem is: “... No marker can be compared to another without considering the conceptual mapping of the structure to which there are associated” (p. 2)

### *Recent version of Input-Processing Theory*

Gragera discusses the latest version of Van Patten’s input processing theory in terms of:

1. Relationship between grammar and meaning/cognition.
2. Distinction of three sets of cognitive processes and three distinctive informational systems.

A brief overview is presented below:

1. Van Patten's principles of Input-Processing Theory (Van Patten 2003, p. 420 in Gragera 2005, p. 2) further probed into the relationship between grammar and meaning. When the same semantic information is sought, it is the lexical item that is processed before its grammatical counterpart (2005, p. 2). Even while processing the lexical items, there is sequencing or ordering that is followed which does not adhere to a linguistic basis but to a developmental theory. However, Van Patten's principles of input-processing theory didn't contribute much to the understanding of how this encoding is done. Gragera pointed out at the need for a more coherent theory of SLA in terms of cognition.
2. Three sets of cognitive processes (viz. processing, accommodating/restructuring, and monitoring/accessing) as well as three informational systems (viz. informational, input, and output) have been distinguished in Van Patten's language acquisition scheme (Gragera 2005, p. 2).

"As part of the conscious channels by which knowledge of any kind are attained, general cognitive principles such as memorization, induction, and deduction, among others, does play a role in language acquisition" (Gragera 2005, p. 3).

Gragera concludes the critical discussion of the Input processing theory of Bill Van Patten by observing that there is not but a lot of psychological complexity to which SLA responds to, and hence this goes beyond the realms of any possible cognitively available single autonomous language acquisition device. Graziano (1975) proposes a language construct known as language operational gestalt (LOG) "LOG is at the core of pedagogic proposals aimed to explore attention processes: input processing, input enhancement and focus on form" (Graziano 1975, p. 3).

The literature review on information-processing and input-processing has made us conclude that there is an essential difference between the two concepts.

Information-processing refers to the chunking of ideas/concepts present in the written/spoken text, in order to comprehend the message/gist of the text. The priority here is meaning-embedded units/chunks rather than the language structure of the text. We argue, therefore, that "reading a text" and "listening to a speech" involve information-processing and that the reading involves the processes or activities for comprehension of the essence of the written text source and listening involves the processes for absorbing the main ideas put forward in the spoken text. Hence, the focus is on the extraction of meaning-embodied text chunks.

Input-processing refers to the focus on the linguistic structure of the written/spoken text. This is revealed when a learner prepares a script from the written text source (selected by him/her) s/he has read (note-making); when s/he takes down notes while listening to a speech (note-taking); and finally, when she/he answers questions (in a written test) based on the contents of the text and the notes made or taken.

## 2.5 Research on Language Processing for Production

The body of research dealing with the sentence processing and task analysis for production is discussed here. We consider this body of research as a combination of information processing and input processing. Task completion and performance require the learner to process both information and input. This section presents research studies and certain perspectives on the issues of tasks and sentence processing for language performance.

Chaudron (1985, p. 9) analyses the dimensions of tasks in terms of the degree of encoding required in the three forms: oral, written and non-verbal modes.

In the context of linguistic production, the following categories are discussed:

- Less encoding, non-verbal:

Less processing for comprehension (close to input): Signal detection, pattern recognition, pattern matching, categorization;

Medium processing: Motor response to commands, selecting pictures;

More processing (distant from input): Inferencing, decisions, structural analysis, grammatical judgements

- Between less and more encoding, oral (between non-verbal and written):

Less processing: Echoic responses (short segments), imitation (within STM limits);

Medium processing: Elicited imitation (longer than STM limits); Listening cloze (oral response), rephrasing/recalling text/narrative;

More processing: Re-telling, free production

- More encoding, written:

Less processing: Partial dictation (simultaneous aural—graphic), partial dictation recall (sequential);

Medium processing: Dictation, listening cloze (written response);

More processing: Written recall, comprehension question responses.

Carr and Curran (1994) in their discussion of cognitive factors in learning about structural sequences address issues related to the nature of what is learnt, as well as the role of conscious awareness and limited capacity in syntactic learning (p. 205).

Ellis (1996) discusses the role of sequencing in SLA dwelling on the phonological memory, chunking and points of order (p. 91). According to the essential empiricist account of SLA: “1. Language learning is the learning and analysis of sequences; 2. Language learners differ in their sequencing ability; 3. These observations suggest chunking as a general process of SLA; and 4. These general processes of sequence learning determine a range of particular aspects of SLA” (p. 92).

Liz Temple (1997, pp. 75–90) presents the memory and processing models in language learner speech production (based on the analysis of the spontaneous speech of natives and learners of L2 French) examined from the point of view of

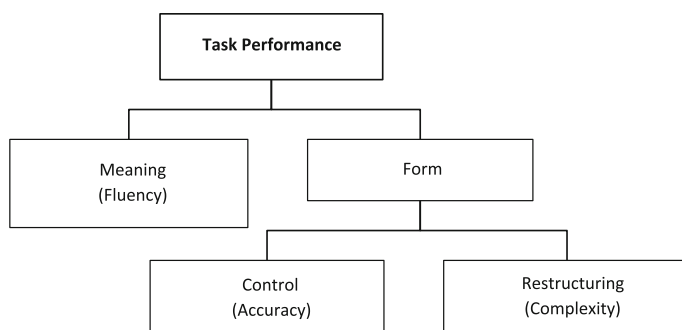


hesitations, pauses and repairs propose that breakdowns in the L2 production system occur at the level of the formulator, and are due to learners accessing explicit rather than implicit memory, a lack of automatic encoding processes, the capacity constraints of working memory and the use of serial processes. The development of L2 fluency requires procedures to work in parallel, automatically, and beyond the constraints of working memory.

Nick C. Ellis (in Schmidt and Carthy 1997) expresses the following opinions about vocabulary acquisition (word structure, collocation, word class, and meaning): “Some people have difficulty acquiring lexis because of their problems in sequencing and chunking in phonological memory” (1997, p. 133); “some ... because they fail properly to infer the meanings of new lexis” (1997, p. 135); and “Some ... because they fail to use appropriate strategies for learning label-meaning associations”(1997, p. 138).

Skehan (1998b in Ellis 2005a, pp. 141–42), in the context of how knowledge is represented in the mind, distinguishes between exemplar-based and rule-based linguistic systems. The former consists of a larger number of formulaic chunks of various shapes and sizes (i.e. from complete utterances to short phrases (with one or more slots open)—for a detailed summary of literature on the formulaic language refer to Weinert (1995) and Nattinger and De Carrico (1992). For Skehan, their importance lies in the fact that they conserve precious processing resources.

The rule-based system can be used to compute an infinite variety of well-formed utterances/sentences. The disadvantage of this system is that it is costly in processing effort, difficult to operate in online communication, especially where planning time is limited. To this end, Skehan (1998b in Ellis 2005a, pp. 141–42) proposes that learner production be examined in terms of an initial contrast between meaning and form, with form further distinguished with regard to “control” and “restructuring”. The three-way distinction that emerges as a result is shown in Fig. 2.3 (1998b in Ellis 2005a, p. 143).



**Fig. 2.3** Skehan’s three aspects of task performance. *Source* Skehan (1998b) in Ellis (2005a, p. 143)

Meaning is manifested by fluency, while form is marked by accuracy in case of control being given the importance and by complexity in case the learner is willing to undertake risks giving rise to opportunities for restructuring. Skehan argues that these three areas afford “effective indices for measuring performance on a particular task” (1998b, p. 270 in Ellis 2005a, p. 142).

Steven Pinker (1999), in his book *Words and Rules: The Ingredients of Language* talks about language as an amalgamation of “memorized chunks and sub-governed assemblies”. (p. 26).

### *Units of Measurement*

SLA research has acknowledged certain units of measurement of which two are relevant to this study:

1. Foster et al. 2000 (in Ellis 2005a) suggest a unit (AS-unit) for measuring the aspects of accuracy, fluency and complexity with reference to a task. The AS-unit is defined as: “... A single speaker’s utterance consisting of an independent clause or sub-clausal unit, together with any subordinate clause(s) associated with it” (Foster et al. 2000, p. 365, in Ellis 2005a, p. 147). The unit is primarily syntactic (rather than intonational or semantic) as syntactic units are easier to identify and thus more reliable.
2. Ellis’ (2005b) gives the concept of idea unit and states that they provide a measure of propositional completeness. “Major” and “minor” idea units are further explained by him; the former being essential in delivering the content and the latter being associated with the embellishments and frills that are not the essential components required but provide minute details for the message (1989, p. 154).

### *Task Performance and Cognitive Processes/Strategies*

Bialystok (1991a in Bialystok 2001, pp. 16–17) discusses two cognitive processes for language use: analysis of representational structure and control of attention. Tasks included in literate uses of language indicating their demands for analysis and control are (Bialystok 2001, p. 17): 1. High control and low analysis: skimming; 2. High control and high analysis: writing poetry, shifting style, writing studying; 3. Low control and high analysis: nil; and 4. Low control and low analysis: L2 reading, fluent reading, early reading, reading readiness.

Tasks included in oral uses of language indicating their demands for analysis and control are (Bialystok 2001, p. 16): 1. High control and low analysis: disc jockey, David Letterman; 2. High control and high analysis: Noam Chomsky, simultaneous translation, lecturing; 3. Low control and low analysis: L2 conversation, adult conversation, children’s conversations; and 4. Low control and high analysis: definitions.

Tasks included in meta-linguistic uses of language indicating their demands for analysis and control (Bialystok 2001, p. 17) are: 1. High control and low analysis: judge anomaly, symbol substitution; 2. High control and high analysis: Count words in sentences, segment text; 3. Low control and high analysis: Correct

sentences; and 4. Low control and low analysis: Rhyme, synonymy, detect errors, judge correct sentences.

Robinson (2001) distinguishes between resource-directing dimensions of task complexity (for example, the number of elements to be communicated or the absence/presence of contextual support) and resource-depleting dimensions (for example, whether or not learners are asked to perform a single or dual task). In accordance with his multiple-resources view of language processing, Robinson argues that complex tasks involving resource-directing dimensions result in greater attention to form with increments evident in both accuracy and complexity. Similarly, tasks with resource-depleting dimensions adversely affect learners' capacity to attend to both of these aspects of language. The choice then is between "fluency" and combined "accuracy/complexity".

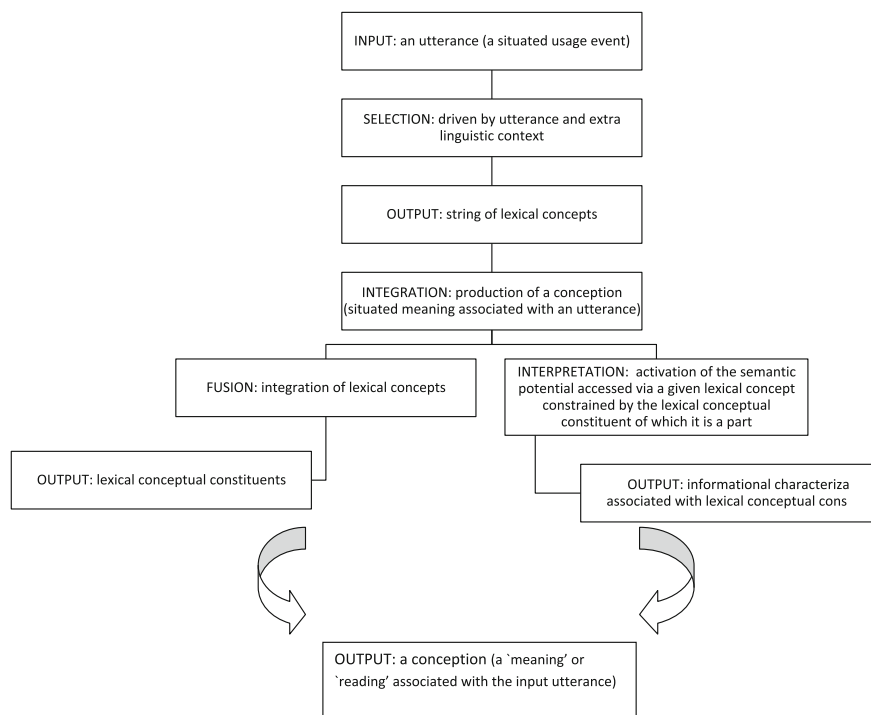
Wendel (1997) and Yuan and Ellis (2003) found that pre-task planning aids both fluency and complexity but has no effect on accuracy. However, they also found that when learners had plenty of time for online planning (i.e. were not pressurized to perform the task rapidly) both accuracy and complexity benefited with fluency understandably reduced.

Craik and Endel (in Balota and Marsh 2004, pp. 296–308), in the context of depth of processing and the retention of words in episodic memory, argue that "The results of the studies" (based on experiments which were designed to explore the levels of processing framework for human memory research proposed by Craik and Lockhart 1972), "demonstrate a continuity between incidental and intentional learning—the operations carried out on the material, not the intention to learn, as such, determine retention"(Balota and Marsh 2004, p. 297).

Taylor (2005) in introducing cognitive development suggests that interest in cognitive development has been resurgent in recent years as a result of continuing improvements in technology and the new methods of research these enable. Florencia Franceschina (2005) in a discussion of fossilized second language grammars and the acquisition of grammatical gender clarifies that there is a possibility of such a stage in L2 where "learner's parametric choices" match up with the "target language and stabilize". This mental state is that of mature grammar, also known by "adult grammar, steady state, end state, final state or ultimate attainment" (2005, p. 16). Franceschina continues to argue that there is disagreement "when people try to establish whether given learners have reached temporary plateaus in development (a.k.a stabilization) or whether the cessation of learning is indefinite (a.k.a fossilization)" (2005, p. 16).

Vyuyan Evans (2006) developed a model to describe the process of acquiring lexical items. He refers to the approach developed as the theory of lexical concepts and cognitive model or LCCM theory (p. 528) which is presented in Fig. 2.4 Evans' Meaning-construction in LCCM theory.

Kausar Husain (2006) discusses the synthesis of language learning strategies and communication strategies "which are different names given to the same set of universal mental processes" (Husain 2006, p. 25). Husain proposes that, "cognitive strategies of learning as of two main types: Simplification and Elaboration" (p. 30) and that "simplification can be called either a major learning process or a meta



**Fig. 2.4** Evans' meaning-construction in LCCM theory. *Source* Evans (2006, p. 528)

strategy of learning” (pp. 30–31). The word “‘process’ have connotations of automaticity and involuntariness, while the term ‘strategies’ implies ‘consciousness’” (pp. 30–31).

Simplification further “consists of ... analysis and control/selection ... Elaboration consists of,, co-relation and synthesis.” (pp. 30–31).

In one recent study, Jackson (2007 in Jackson 2008) found evidence among fifth and sixth semester L2 learners of German in favour of processing strategies similar to those outlined by Van Patten (1996, 2004), in which learners relied predominantly on semantic-based strategies and less on structural-based cues, such as word order or case marking information. The L2 learners read individual sentences, such as 1(a–d), which varied according to whether the subject of the sentence was an animate or inanimate noun, and word order (subject-first vs. object-first).

“1a. Peter can see that the game (NOM) the coach (ACC)

Peter can see that the game angers the coach.

1b. Peter can see that the coach (ACC) the game (NOM)

Peter can see that the game angers the coach.

1c. Peter can see that the child (NOM) the coach (ACC)

Peter can see that the child angers the coach.

1d. Peter can see that the coach (ACC) the child (NOM)

Peter can see that the child angers the coach” (Jackson 2007 in Jackson 2008, p. 390).

These studies, however, did not examine how the L2 learners reached the target sentences as they concentrated only on the final result, i.e. the performance.

“In order to more precisely address the strategies L2 learners employ during comprehension ... research tools common in the field of psycholinguistics ... examine sentence processing among L2 learners. ... self-paced reading, relies on the collection of reading time data ... with longer reading times indicating greater processing difficulties” (Jackson 2008, p. 391)

Only highly proficient L2 speakers have been studied by most research. In order to find a proper relation between the “processing strategies” and “linguistic knowledge”, studies should also be conducted on less proficient L2 speakers (Jackson 2008, p. 392).

Hideki Sakai (2008) “reports on a small-scale study analyzing Japanese-speaking university students’ oral performance in English to test Pienemann’s (1998a, b, 2003) argument that 2nd language acquisition involves the acquisition of psychological processing procedures” (Sakai 2008, p. 534). The five language-specific processing procedures being: “Word/Lemma access; the Category Procedure (grammatical); the phrasal Procedure (diacritic features); the S-Procedure (syntactic functions assigned to phrases); and the Subordinate clause Procedures (main and subordinate clause differentiation)” (2008, p. 535).

“Results suggest that processability theory may be valid for Japanese-speaking EFL learners and that Japanese-speaking EFL learners produce inter language forms or structures that are predicted by processability theory” (p. 534). The tasks that were given to the subjects in the study involved: “Interview task; Spot-the-difference task; Picture description task; Picture identification task; and Story-telling task” (p. 540).

The importance of focusing on what the learner does to acquire a language has been highlighted at various platforms. The theme of the 42nd Regional Language Centre (RELC) International Seminar held from 23–25 April 2007 at SEAMED RELC, Singapore was “strategies in language learning and teaching”, wherein 20 countries and 550 participants contributed to the proceedings of the seminar. The focus of the seminar was on the issues regarding the need for teachers’ awareness of the learning and teaching strategies.

Narayanan et al. (2008) studied the role of attitude factors in English language learning among engineering students. The study is the result of a survey of 408 first year engineering college level English language learners in and around Chennai (India). The focus is on the four subscales of attitude factor. The research questions were: Do attitude factors affect English learning? Are the female students with positive attitude better at learning English than the male students with negative attitude? Results show that female students have positive attitude towards learning English when compared to the negative attitude of the male students (in all attitude categories).

Erik Castello’s (2008) views on text complexity and reading comprehension tests are summarized here. Based on the analysis of a specially compiled corpus of internationally recognized English as a foreign language (EFL) reading tests at different levels of proficiency, Castello’s book explores the relation between the

complexity of written texts and the difficulty of reading comprehension tests. It brings together linguistic investigations into the text-inherent complexity of the tests and a study of the data derived from their administration to groups of Italian university students. The study of text complexity draws on corpus linguistics, text linguistics and systemic functional linguistics. Both quantitative and qualitative analyses are carried out on the language used in the reading texts and in the related tasks that make up the corpus of tests. The assessment of test difficulty, on the other hand, is informed by research on language testing, and, in particular, by findings and methodologies to classical test theory and item response theory. Relevant aspects of these theories are used to analyse and interpret both the data obtained from the administration of the tests and the data collected by means of feedback questionnaires completed by test takers. The application of such diverse methodologies and the subsequent comparison of the results of the analyses have brought out interesting correlations between text-inherent complexity, perceived, test difficulty, and actual test difficulty.

Myers and Chang (2009) report a study on a multiple—strategy-based approach to word and collocation acquisition. This study investigates the effects of a multiple-strategy-based vocabulary teaching approach (that is, varied exposures to newly acquired words as they occur in meaningful contexts). The subjects were 115 Taiwanese high school students. The two experimental conditions (there was no strategy control condition) were: classroom observation and interviewing teachers. The following seven pedagogical activities were utilized: 1. Concept wheels; 2. Word maps; 3. Sentence plus definition method; 4. Individual vocabulary notebooks; 5. Pantomiming; 6. Semantic mapping; and finally, 7. Sentence plus definition method and the verbal visual word association strategy.

The results (after analysing data from: interviews, observation, post-test mean scores, and overall classroom language performance) suggest that using multiple-strategy approaches are beneficial in the acquisition of vocabulary.

Tavakoli (2009) presents the results of the study on assessing L2 task performance to understand the effects of task design. The study investigates the effects of task structure and storyline complexity of oral narrative tasks on second language task performance. The participants were 60 Iranian language learners of English who performed 6 narrative tasks of varying degree of structure and storyline complexity in an assessment setting. A number of analytical measures were employed to find out the differences in performances across the tasks in terms of: accuracy, fluency, syntactic complexity, and lexical diversity. The two variables were: foreground and background information as a scientific feature of narration, and inherent task structures. Results show that performance in the more structured tasks was more accurate and fluent (task structure: problem-solving structure and schematic sequential organization); and syntactic complexity of L2 performance was related to the storyline complexity. The findings strongly suggest that there is some unsystematic variance in the participants' performance triggered by the different aspects of task design.

Varnosfadrani and Basturkmen (2009) studied the effectiveness of implicit and explicit error correction on learners' performance. They looked at: the effects of the

correction of learners' errors on learning of grammatical features (in particular, the manner of correction—explicit versus implicit); and the effectiveness of error correction on the developmental early versus developmental late features. The subjects were 56 intermediate level Iranian learners of English. They were asked to read and retell a written text during an interview. The participants were corrected in their grammatical errors implicitly (using restarts) or explicitly during or following the interview. Based on the corrected errors made by learners, individual tests were constructed and administered. The scores were statistically analysed. The results revealed: higher scores for explicitly corrected learners than the implicitly corrected ones; and developmental early features are learned better with explicit correction and developmental late features with implicit correction.

At the Georgetown University Round Table (GURT) on SLA and bilingualism in 2009, a lot of discussion centred on implicit and explicit SLA. Ellen Bialystok<sup>4</sup> asserted that "... the two outcomes (of lifelong bilingualism which leads to both advantages in nonverbal cognitive control and disadvantages in lexical access) are in fact consequences of a single system". Nick Ellis presented his argument that "Explicit and implicit knowledge are distinct and disassociated; they involve different types of representation and are substantiated in separate parts of the brain. Nevertheless, they do interact". Van Patten took a generative perspective while debating against the implicit/explicit learning debate in SLA which has suffered from both methodological and conceptual problems. Michael Ulmanin highlighted the declarative and procedural memory in first and second language and included data from psycholinguistic, neurological, and neuroimaging studies.<sup>5</sup> Discussing the construct of intake (Corder 1967) as of central importance in SLA research, Han stated that there is "...a recently emerging interest in so-called learner spontaneous processing of input" (ZhaoHong 2009).

Processing of inputs became the focus of many research studies after GURT, 2009. Siyanova-Chanturia et al. (2011) use eye-tracking to "... investigate online processing of idioms in a biasing story context by native and non-native speakers of English. The stimuli are idioms used figuratively (at the end of the day—eventually), literally (at the end of the day—in the evening) and novel phrases (at the end of the war)" (Siyanova et al. 2011, p. 251). The results indicate that native speakers had processing advantages for idioms over novel phrases (fewer and shorter fixations of eye); and there were no processing advantages for figurative idioms over literal ones. Non-native speakers of English process idioms just as novel phrases; and figurative uses are processed slower than literal ones.

Carroll (2012) presents an exploratory study of sentence location and word length effects on input processing.

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<sup>4</sup>Implicit and Explicit Conditions, Processes and knowledge in SLA & Bilingualism, pp. 13–15 March 2009, Washington, DC.

<sup>5</sup>See, for more details, [www8.georgetown.edu/college/gurt/2009/plenaries\\_full\\_abstract.html](http://www8.georgetown.edu/college/gurt/2009/plenaries_full_abstract.html), accessed on 21 March 2016.

Alhaysony (2012) explores a think-aloud protocols investigation of dictionary processing strategies among Saudi EFL students. The study examines qualitatively how Saudi EFL female students look up word meanings in their dictionaries while reading. The aim of the study is to identify and describe look-up strategies. The participants for the study were 10 third-year English major students. A think-aloud protocol was used in order to gain insights into the detailed process of dictionary consultation while reading an English text. The results indicate that the strategy use is indeed complex. Most students attempted a variety of strategies and the frequency of the strategies used fluctuated.

Lauzon and Doehler (2013) make an attempt to bridge the gap between focus on form research and conversation analytic research on SLA. There have been conventionally two lines of research in SL interactions: Focus on Form Research and Conversation Analytic Work on repair in second language interactions. In this paper, a study of correction in naturally occurring French L2 classroom interaction addressing the following questions: how is attention focus on form distributed among the participants and interactionally organized across the temporal unfolding of talk? There is the analytical difficulty of determining precisely whose focus is observed in focus on form episodes. The data for the study is 45 min long French L2 lessons that have been video-recorded in a high school in German speaking Switzerland. Students are 18-year-olds and had had French L2 instruction for 7 years (4–6 h) weekly. The findings substantiate an understanding of attention focus—along with the cognitive operations of participants—as a process that is interactionally occasioned and organized, and the transformation of which into joint focus hinges on the local contingencies of talk.

Poehner and Compernelle (2013) examine learner response processes during a Dynamic Assessment (DA) of L2 reading comprehension. This is a detailed case analysis of an L2 French learner whose success in responding to a comprehension item obscures her understanding of the text and the challenges it poses. This study aligns with research indicating that learners may orient to such assessments as problem-solving rather than comprehension activities (Rupp et al. 2006). In DA, learner response processes are externalized through dialogue with the assessor, or mediator, who does not simply document these processes but intervenes. The researchers trace how the mediator regulates orientation to the task, pursues reasons behind learner choices and cooperates with the learner to create opportunities for learning during the assessment.

Conroy and Cupples (2013) compared production of modal perfect sentences (If the father had supervised the child more carefully, the child wouldn't have fallen over) by native English speakers and advanced non-native English speakers from Asian L1 backgrounds in discourse and discourse free contexts. In Experiment 1, native and non-native speakers reconstructed modal perfect sentences from sequential anagrams under time pressure. The subjects were 41 participants of which 21 were native speakers (16 female + 5 male) and 20 advanced non-native speakers (15 female + 5 male). The students were UG and PG students at an Australian university. Both speaker groups were faster to construct modal perfect sentences than closely matched control sentences. In Experiment 2, there were 55



participants of whom 23 were native speakers (6 males + 17 females) and 32 were non-native speakers (15 males + 17 females). The native and non-native speakers read and responded orally to stories designed to elicit modal perfect. The results revealed that non-native speakers produced significantly fewer modal perfect sentences than native speakers. Taken together, the findings suggest that although non-native speakers from Asian L1 backgrounds have the syntactic capability to produce modal perfect under constrained conditions in a sequential anagram task, they're less likely to produce such constructions in particular discourse contexts, perhaps as a result of differences in cultural background.

### *National Scenario in the Field of Applied Linguistics and Language Teaching*

Systematic studies on learner language and studies in the context of SLA, case of English in India or in the field of pedagogical strategies, theories, and models are rather limited. Some notable studies seen in the form of MPhil and PhD research dissertations produced at Jawaharlal Nehru University include some focused on acquisition and learning (Alwalss 2000; Lee Cha 2000; Chaudhry 2010), others focusing on ELT/ESP and learner need-based pedagogical strategies (Reza 2005; Modhish 2006; Chandra 2008; Pandey 2011; Jha 2014), and few others on error analysis, error hierarchy, rates and routes of learning as inferred from error hierarchy (Suresh 2000; Qassim 2010; Mahto 2014) which give us some indication on how second language acquisition is closer to the process of acquisition while a foreign language is like the process of learning rather than acquisition. The fact that most Indian universities boast of having remedial English programmes to help students pursue their higher education is a point highlighted in the thesis of Kumar (2007). This is a pointer to the fact that error correction is considered perhaps the most important pedagogical strategy for undergraduates in Indian universities.

Studies focused on acquisition and error analysis seem to make a point that the process of acquisition (SL) is distinct from the process of learning (FL), one involving more of input processing and the other (learning) involving more of information processing.

The 1961 Census which mainly referred to Grierson's Linguistic Survey of India took into account that there are 1652 languages in India and classified them into 193 languages. In India multilingualism is a reality and monolingualism a myth. As far as English is concerned, bilingualism in India is 2.5–3.0 % (in absolute numbers-close to 300 million) (Chaudhry 2010). The domains of use are: administration as second official language, higher education, media, and environment, link language across regions in urban India and link language of the educated with the world outside.

Negatively speaking, English is not used in close home and family domains, culture-specific activities, and informal communications in media and entertainment—only to the extent of added lexicon and verbal repertoire (code mixing). Even in educational institutions, it is not used in informal peer group communications.

Scholars like Pandit, Kachru, Srivastava, Pattanayak, and Khubchandani as cited in Gargesh (2006, p. 73) have tried to understand the multilingual and pluricultural nature of the subcontinent. According to Gargesh (2006, p. 73) “it may be

appropriate to say that speakers in South Asia are endowed with a “multilingual communicative competence”. Scholars have pointed out that the language ecology of the subcontinent consists of grassroots bilingualism.”

Gupta (2006) concludes that methodology from the West is frequently implemented in Toto in Indian classrooms. Sometimes success is the outcome and occasionally, failure results. This study records one such episode of initial failure (1994) and ultimate success (2004) of the CLT (communicative language teaching) method. While teaching the history of CLT, Gupta looks at its growing acceptance in India (with reference to Panjab University, Chandigarh, which devised a “Communicative Skills Syllabus” as part of the undergraduate programme and implemented the same in the year 1989). Gupta, as a teacher of English in Punjab University, records the results of the two surveys (1994 and 2004) to show the evolution of the gradual acceptance of CLT in India. She concludes that there was a complete paradigm shift from EFL to CLT methodology and CLT has become a success in the same classrooms.

Bayer (2006), in his study on English spelling simplification activity in an Indian classroom, makes an observation that spelling is a compelling issue amongst learners of English in India. The paper also tries to suggest minimal changes that could be made in English spelling for enhancing global literacy in English. The study presents classroom examples of English spelled by some speakers of Kannada, an Indian language, spoken in Karnataka, South India. Their English is evolving as a type of its own, coloured in spelling which is phonetic in nature. The three scripts that the learners have are: Dravidian (regional language—Kannada), Devanagiri (National language—Hindi), and Roman Script (International language—English)

Example: *improve* is spelt as *impruvete*

Krazanowski (an ELT consultant in the UK) (2007) argues that since “English is being increasingly used for international business communication, a standardized English may be difficult”. Instead he suggests, “it may be necessary to divide the notions of standardized English and English for international business communication. The former may be restricted for general public use (when one is expected to speak and write Standard English) and perhaps for higher education (be it in the UK or USA or countries where English is the *lingua franca*). The latter would need to be part of international business communication where most people involved are non-native speakers. It is natural that the speakers who represent the latter group have varying degree of competence of English. The ELT scenario in India demands a radical change in the teaching methodology and the role of an English language teacher needs to change in a drastic way”.

The project, “Mapping Language, Mind and Brain: Studies in Biolinguistics” was conceptualized in the year 2002 by Prof. Vaishna Narang of the Centre for Linguistics as the Project Director (under the UGC-UPOE) “as a set of interconnected empirical studies, in areas which may appear to be different on the surface (in approach and focus), but which ultimately helps one to reflect on the larger picture of Language-Mind-Brain (LMB) relationship” (Narang 2008, vol. 1: xi).

As far as the approach to the study was concerned, “with a renewed interest and focus on cognition and study of mind, consciousness, which can only be pursued

with multidimensional, multidisciplinary paradigms and approaches, researchers and educators are fast discovering that discipline boundaries are collapsing. These rigid boundaries between disciplines serve limited pedagogic function, beyond which they are rather restricting and become a hindrance in the pursuit of knowledge” (2008, vol. 1, p. x).

Vaishna Narang’s *Issues in Learning Theories and Pedagogical Practices* (2013) is a collection of essays and research articles on issues that are of contemporary interest in the area of language learning and pedagogy. The volumes bring to the reader an entire range of studies covering themes that frequently recur in the discipline of language studies. Ranging from the micro- to the macro-level, some of the topics covered in the two volumes are pedagogical theories and the specifics of classroom practices, the sociocultural contexts of language teaching, multilinguality, and language policy and planning in India. In over 50 articles, the two volumes bring together theoretical perspectives as well as hard core empirical data across a variety of languages and regions. They provide researchers and teachers with critical insights into the complex and multi-layered relationships between theories of learning and pedagogical practices, with an overview into theories of language learning, and with the best possible practices in everyday classroom situations.

The studies are thematically divided into various sections dealing with research in the area of language pedagogy taking into consideration the two major paradigm shifts—from grammar translation methods to direct methods in the 1930s and 1940s and later to learner oriented language pedagogy in the 1980s. “Research in the area of language pedagogy was thus focused on the process of learning and/or acquisition, input processing by an adult in controlled and restricted situations as in FL (Foreign Language), new dimensions of Error studies and Second Language Acquisition (SLA) at the end of the century” (Narang 2013, p. xvi)

*Mixed Ability Classes—The Indian ELT Scenario: 2009*

*Concepts related to Mixed Ability Classes* (as expressed in the website articles)

Tice (1997) defines mixed ability class as follows: “Mixed ability refers to: classes in which there is a very clear difference in language level among the students... in learning style ... students’ background knowledge, knowledge of the world and their skills and talents in other areas ... levels of motivation” (1997, p. 5).

Reyes and Rodríguez (2005) deal with some teachers’ thoughts on responding to the needs of all learners collected through interviews. The interviewees were seven teachers: three from a secondary school and four from an upper secondary school. All the teachers had long teaching experience varying from 10 to 26 years. The questions put were regarding: language development, silent/shy students, slow/advanced readers, reading and writing difficulties, learner autonomy, and streaming.” There were four main ideas that all teachers mentioned as means of meeting every pupil’s needs: to vary instruction, to have extra material, to individualize as much as possible, and to assess continuously” (2005, p. 27).

Jones (2007) in the book *Student-centered Classroom* has the following to say about mixed ability classes: “In many ways, every class is a mixed ability class.

Even students who have studied together all the time will have varied mastery of the language or remember different things. Some will be better at different skills: reading, writing, listening or speaking. They bring their own personalities, strengths, weaknesses, and learning styles to the class” (p. 5).

Nystuen (2009) in the article, “Understanding today’s learners and meeting their needs through differentiation”, quotes Junco and Mastrodicasa (2007) thus: “this net generation shares 7 main personality characteristics that include the following: this generation believes they are special, because their baby boomer parents took an active role in their childhood development; learners are very conventional; because they are so achievement oriented, these learners also feel pressured; confident; skilful negotiators; team-oriented; expect beneficial results”.

Wasiłow (2009) discusses the implications of metacognition on instructional technology for today’s differentiated learners. Metacognition is defined as: “an awareness of one’s own cognitive processes rather the content of these processes together with the use that self-awareness in controlling and improving cognitive processes” (Biggs and Moore 1993, p. 527, in 2009, p. 2).

The challenges of mixed ability Indian classrooms were analyzed in detail in many presentations at the 4th International and the 40th Annual Conference of the English Language Teachers’ Association of India (ELTAI) (2009). The various issues that were discussed are: critical thinking and the mixed ability English classroom, mixed ability in large classes, how reading strategies work in mixed ability large classes, and the role of teacher as an ethnographic researcher in a mixed ability language classroom.

### *Research in Receptive Skills—Reading and Listening* *Second Language Reading Research*

Grabe and Stoller (2002) give a detailed review of all the aspects of teaching and research regarding the skill of reading. Reading is done to “search for simple information”, “skim quickly”, “learn from texts”, “integrate information”, “write (or search for information needed for writing)”, “critique texts”, and “for general information” (p. 13). Processes involved in reading text, or passages: “These processes, or reading gears, are called scanning (Gear 5), skimming (Gear 4), reading or normal reading (Gear 3), Learning (Gear 2), and memorizing (Gear 1) ...” (p. 12). Processes involved in fluent reading comprehension are: “Fluent reading involves—rapid, efficient, interactive, strategic, flexible, evaluating, purposeful, comprehending, learning and linguistic processes” (p. 17)

“The lower-level processes represent the more automatic linguistic processes and are typically viewed as more skills oriented. The higher-level processes generally represent comprehension processes that make much more use of the readers’ background knowledge and inferencing skills” (p. 20).

Lower-level processes include: “lexical access, syntactic parsing, semantic proposition formation, and working memory activation”. Higher level processes include: “text model of comprehension, situation model of reader interpretation, background knowledge, inferencing and executive control processes” (p. 20). A lot of differences were also noted between L1 and L2 reading. These differences were

linguistic and processing differences, individual and experiential differences between L1 and L2 readers as well as sociocultural and institutional differences.

Different areas and issues of reading that were covered are at the level of word, discourse organization and text comprehension, main idea comprehension and instructional routines, extensive reading and motivation, metacognition and the language threshold, social and cultural context influences on reading. “Most of the studies reported here were conducted with students of other teachers” (Grabe, p. 150).

Alwalss (2006) presents a comprehensive summary of his research work in the book on contemporary themes and issues in language pedagogy (edited by Vaishna Narang) in the chapter titled: “Teaching Reading Skills: EFL for Speakers of Arabic in Yemen”. Some of the observations made are:

1. A text has no meaning: it has potential for meaning.
2. Knowledge of the language in which the text is written: a necessary element, but not sufficient.
3. Prior knowledge is not sufficient to ensure comprehension.
4. Comprehension is a goal-oriented process.
5. The information actually used by the reader in order to comprehend text is much more than the information presented in a text, because no text is completely explicit.
6. Comprehension is not a simple process of decoding information presented in the text.
7. Reading is a prediction-based activity.
8. Almost all understanding is contextual.
9. No two readers are multi-actuality alike.
10. A text when viewed from different context can be interpreted to mean different things.

The final assertion is that “comprehension is affected by the writer’s style and text structuring, the reader’s strategies and reading experiences as well as the text readability” (Narang 2006, p. 55).

An empirical study was conducted to study the: English reading habits of speakers of Arabic in Yemen; identify strategies while reading and comprehending a written English text; to study speed of reading and comprehension; study general comprehension level of Arabic undergraduates learning English; and, finally investigate the relationship between general language ability (competence), reading comprehension and reading strategies” (Narang 2006, p. 55). The Subjects were the fourth year students of English Departments at the Faculties of Arts and Education at Sana’s University (Narang 2006, pp. 56–57). The students were from similar background: culturally (Islamic Arabic, Yemeni traditional upbringing); Class (lower-middle to upper middle society); age between 22 and 24 years old); linguistically (all are native speakers of Arabic and English in Yemen is a foreign language) (Narang 2006, p. 57)

The findings of the research were that the students with higher linguistic ability had higher speed in reading. This helped the researcher in drawing certain inferences about the reading practices and the processes which have significance for reading English as FL in Yemen in particular FL in general and teaching language. (Narang 2006, p. 82).

Kumar (2009) in his article, “Neural Network of Reading”, discusses, “the functional organization of reading in the brain as an example of learning and neural plasticity” (p.179). The relevance of the article to the thesis lies in the fact that reading is considered as an information-processing activity. To quote Kumar, “Reading is primarily considered as an information processing activity ...” (p. 179).

Learning to read is typically described as a series of stages in which new decoding skills are acquired and applied. It is viewed as a process of adding, decoding tools and strategies to one’s repertoire and honing those skills with practice.

### *Second Language Listening Research*

Flowerdew and Miller (2005) present the theory and practice of second language listening.

Meaning of Listening: “In order to comprehend a spoken message, four main types of knowledge may be drawn on: phonological—the sound system, syntactic—how words are put together; semantic—word and propositional knowledge; and pragmatic—the meaning of utterances in particular situations” (p. 30).

Processing of messages: “As we process incoming messages, the brain applies its knowledge of syntactic rules to parse sentences and make sense of them. It does this, we assume, in two stages: by assigning units (words, phrases, clauses) to the larger units (constituent structures) of which they are a part, on the one hand, and by recognizing the relationships created between the units, on the other” (p. 35). “... what tends to endure in individual’s memories after processing sentences is not the linguistic form but the semantic content” (p. 39).

### *Various methods studied from the Input-Processing Perspective*

In this section, we look at various approaches in language teaching over the years and the role of input-processing in these approaches.

Language teaching methods and classroom practices have evolved over a period of time due to innumerable factors impacting pedagogy in different ways. These sociocultural-educational-linguistic factors have been discussed by various authors such as Halliday et al. (1964) on linguistics and language teaching; Spolsky (1966, 1969); Wilkins (1972) insisting on an indirect relationship between linguistics and language pedagogy; Stern (1984) talks about evolution of a method while Flowerdew and Miller (2005) address the theory and practice of second language listening; and Narang (2006) and Narang et al. (2013) present two paradigm shifts in language pedagogy in the last 100–120 years. The first major paradigm shift refers to the time when the most prevalent methods of Grammar Translation and also Grammar Method gave way to the structure-oriented drill methods, oral-aural methods and phonetic methods under the cover terms like Direct methods and

Pattern Practice methods in the 1930s and 1940s of the twentieth century. This paradigm shift in pedagogical practices was witnessed in the first half of the twentieth century primarily due to the influence of structuralism in linguistics and behaviouristic theories and philosophy of learning in psychology. The discrete point approaches and use of language laboratories for maximizing drill time for every learner in the class was the trend in this period which also gave us Army method and ASTP (Mackey 1969) when political compulsions of WWI and WWII led to evolving short-term, intensive phonetic (drill) methods for army men to learn the spoken, colloquial, vernacular varieties of the enemy's language.

The focus in both these major trends was on language and its structure. The second paradigm shift took place when these structure-oriented drill methods continuing through the 1950s and the 1960s despite Chomskyan cognitive revolutions in the middle of the century gave way to the communicative language teaching (CLT) paradigm in the 1970s and the 1980s. This paradigm shift cannot really be attributed to the impact of linguistics or psychology, or the socio-political factors but clearly to the classroom practices, teachers' success and failures in using those highly mechanized drills, teachers innovations and efforts to contextualize the structures learnt by the pupils in language laboratories in the 1960s and the 1970s. We find a clear shift in the writings of the language teaching theorists from structure to function, from drills to conversations, from discrete point approaches to integrated approaches and from language to communication. The focus also shifts from form to functions and tasks on the one hand and from language to learner and the process of learning on the other hand. As a result we have more writings on learner needs and learner strategies leading to the appropriate choice of teaching materials, methods as well as teaching strategies in the last couple of decades.

This background note on methods brings us to the clusters of methods in the first paradigm (Grammar Translation methods up to the 30s and 40s) followed by the second paradigm of direct methods and drill methods from the 40s to the 60s and the 70s, and the third – learner centred approaches and the communicative paradigm in the 80s and onwards.

Hence, the language teaching methods listed in literature are many but as representatives of the three major trends in the past 100 to 120 years we examine the following three pedagogical approaches to understand what kind of processing was envisaged while following these methods:

- (a) Grammar – Translation Methods which include grammar methods, and deductive approaches as well are continuing since the eighteenth and nineteenth century, well into the early twentieth century. The focus was on information about the language i.e. rules of grammar that the students were expected to learn and apply, accompanied by translation exercises using learners' native language. Hence bilingual methods with intensive information and training in grammar were the trend.
- (b) Direct methods and various drill methods focus on habit formation and reflex conditioning since the 30s and the 40s in the twentieth century. Focus is again on form but the rules are expected to be internalized by a process of inductive

generalizations by the learner. Since the form focus without any input on language use or functions in context is inadequate input anyways, the expectation from the learner is to arrive at the grammar rules (form only) by a process of inductive generalization.

- (c) Learner-centred, communicative function oriented theories and approaches are the result of two trends in response to (a) and (b) above. One is on the theoretical front where there is a major shift from the focus on the structure of language (form and content) to focus on the learner and the process of learning. On the applied side, in actual language teaching classrooms, the shift was from discrete point, structure oriented drill methods and exercises to communicative function oriented integrative task-based approaches.

The concluding chapter includes a section on Pedagogical Practices and the implications of two studies reported in this book. The discussion in this section also includes the nature of input/information processing envisaged in these three paradigms.

## References

- Alhaysony, M. (2012). A think—aloud protocols investigation of dictionary processing strategies among Saudi EFL students. *IJAL*, 38(2), 79–105.
- Alwalss, B. A. A. (2000). Reading skills and strategies: A study of undergraduate speakers of Arabic learning English at Sana's university. Unpublished Ph.D Thesis JNU, New Delhi.
- Alwalss, B. A. A. (2006). Teaching reading skills: EFL for speakers of Arabic in Yemen. In V. Narang (Ed.), *Contemporary Themes and Issues in Language Pedagogy*. Book Plus: Delhi.
- Balota, D. A., & Marsh, E. J. (Eds.). (2004). *Cognitive Psychology*. New York: Psychology press.
- Bardovi-Harlik, K. (2008). *Recognition of Conventional Expressions in L2 Pragmatics*.
- Bayer, J. M. (2006). English spelling simplification activity in 'My' country: the classroom experience. *Indian Linguistics*, 67(1–4), 29–37.
- Bialystok, E., & Frohlich, M. (1977). *Second Language Learning and Teaching in Classroom Settings: The Learning Study*, Year One.
- Bialystok, E. (2001). *Bilingualism in Development: Language, Literacy and Cognition*. Cambridge: Cambridge University Press.
- Biber, J., Leech, G., Conrad, S. & Finegan, E. (1999). *Longman Grammar of Spoken and Written English*. Harlow: Essex. Pearson Education Limited (p. 992), in Wei and Lei (2011). Lexical bundles in the academic writing of advanced Chinese EFL learners. *RELJ Journal* 42(2), 155–166 (p. 156).
- Biggs, J. B., & Moore, P. J. (1993). *The Process of Learning* (3rd ed.). Englewood Cliffs: PrenticeHall. (p. 527).
- Brown, R. (1991). Group work, task difference, and second language acquisition. *Applied Linguistics*, 21, 1–12.
- Brown, R. (1973). *A First Language: The Early Stages*. Cambridge: Harvard University Press.
- Brumfit, C. (1984). *Communicative Methodology in Language Teaching: The Roles of Fluency and Accuracy*. Cambridge: Cambridge University Press.
- Brumfit, C. (1979). Communicative language teaching: an educational perspective. *The communicative approach to language teaching*, 183–191.
- Carr, T. H. & Curran, T. (1994). Cognitive Factors in Learning about Structured Sequences: Applications to Syntax. *Studies in Second Language Acquisition*, 16, 205–230.



- Carroll, S. E. (2012). When is input salient? An exploratory study of sentence location and word length effects on input processing. *International Review of Applied Linguistics in Language Teaching*, 50(1), 39–67.
- Castello, E. (2008). *Text complexity and reading comprehension tests* (Vol. 85). Peter Lang.
- Chandra, T. (2008) Teaching English to Undergraduate Students of Mass Communication: A Study in ESP. MC. Unpublished Ph.D Thesis JNU, New Delhi.
- Chaudhry, V. (2010). Role of Input-Processing in SLA: A Study of Engineering Undergraduates Learning ESL. Unpublished Ph. D Thesis JNU, New Delhi.
- Chaudron, C. (1985). Intake: On Models and Methods for Discovering Learners' Processing Input. *Studies in Second Language Acquisition*, 7, 1–14.
- Chomsky, N. (1959). A review of BF Skinner's verbal behavior. *Language*, 35(1), 26–58.
- Chomsky, N. (1965). *Aspects of the Theory of Syntax*. Cambridge, Mass: The MIT Press.
- Conroy, M. A., & Cupples, L. (2013). Language choices in L2 English language production: Why speakers could have used modal perfect but didn't. *International Review of Applied Linguistics*, 51(4), 379–406.
- Corder, S. P. (1967). The Significance of Learner's Errors. *International Review of Applied Linguistics*, 5(2–3), 161–169.
- Craik, F. I. M., & Lockhart, R. S. (1972). Levels of processing: a framework for memory research. *Journal of Verbal Language and Verbal Behaviour*, 11, 671–684.
- Dore, J. (1974). a pragmatic description of early language development. *Journal of Psycholinguistic Research*, 3(4), 343–350.
- Edmonds, A. (2008). Drawing the line between conventional and formulaic in inter language pragmatics. Paper presented at *EUROSLA 18*, Aix-en-Provence, September 10–13, 2008.
- Ellis, N. C. (1996). Sequencing in SLA: Phonological memory, chunking and points of order. *Studies in Second Language Acquisition*, 18, 91–126.
- Ellis, N. C. (1997). Vocabulary acquisition: Word structure, collocation, word-class and meaning. In N. Schmidt & Mc Carthy (Eds.), *Vocabulary: Description, Acquisition and Pedagogy*. Cambridge: Cambridge University Press.
- Ellis, R. (2005a). *Analyzing Learner Language*. London: Oxford University Press.
- Ellis, R. (2005b). Measuring implicit and explicit knowledge of a second language: A psychometric study. *Studies in Second Language Acquisition*, 27(2).
- Evans, V. (2006). Lexical concepts, cognitive models and meaning construction. *Cognitive Linguistics*, 17(4), 491–534.
- Faerch, C., & Kasper, G. (1980). Processes and strategies in foreign language learning and communication. *Interlanguage Studies Bulletin*, 47–118.
- Fay, D. (1980). Performing transformations. In R. A. Cole (Ed.), *Perception and Production of Fluent Speech*. Hillsdale: Erlbaum.
- Fillmore, L. (1976). Cognitive and Social Strategies in Language Acquisition. Unpublished Ph.D. dissertation, Stanford University. (cf. Krashen 1981, p. 93).
- Fillmore, C. J. (1979). On fluency. In C. J. Fillmore, D. Kempler & W. S. Y. Wang (Eds.), *Individual Differences in Language Ability and Language Behavior* (pp. 85–101). New York: Academic Press.
- Flowerdew, J., & Miller, L. (2005). *Second language listening: Theory and practice*. Cambridge: Cambridge University Press.
- Forseberg, F. (2010). Using conventional sequences in L2 French. *International Review of Applied Linguistics in Language Teaching*, 48(1), 25–51.
- Franceschina, F. (2005). *Fossilized Second Language Grammars: The Acquisition of Grammatical Gender*. Amsterdam/Philadelphia: John Benjamins.
- Gardner, D., & Miller, L. (1996). *Tasks for Independent Language Learning*. TESOL, 1600 Cameron Street, Suite 300, Alexandria, VA 22314.
- Gargesh, R. (2006). South Asia. In M. Berns (Ed.) *Concise Encyclopedia of Applied Linguistics* (p. 73). Elsevier (2010).

- Graziano, E. E. (1975). Language-operational-gestalt awareness: A radically empirical and pragmatic phenomenology of the processes and systems of library experience. *Association for Library Automation Research Communications*.
- Goldman, S. R., & Rakestraw, J. A. (2000). Structural aspects of constructing meaning from text. *Handbook of Reading Research*, 3, 311–335.
- Grabe, W., & Stoller, F. L. (2002). *Teaching and Researching Reading*. London: Pearson Education.
- Gragera, A. (2005). *Input-processing Revisited*. Free Online Library: <http://www.freelibrary.com>
- Gupta, D. (2006). *Communicative Language Teaching: Then and Now*. New Delhi: Books Plus.
- Hagoort, P., & Levelt, W. J. (2009). The speaking brain. *Science*, 326(5951), 372–373.
- Hakuta, K. (1974) A preliminary report on the development of grammatical morphemes in a Japanese girl learning English as a second language. *Working Papers on Bilingualism*, 3, 18–43. (cf. Krashen 1981, p. 91).
- Hanania, E. & Gradman, H. (1977) Acquisition of English structures: a case study of an adult native speaker in an English-speaking environment. *Language Learning* 27, 75–92. (cf. Krashen 1981: 96).
- Hatch, E. (1972). Some studies in language learning. *UCLA Workpapers in Teaching English as a Second Language* 6, 29–36. (cf. Krashen 1981, p. 90).
- Howatt, A. P. R. (1984). *A History of English Language Teaching*. Oxford: Oxford University Press.
- Husain, K. (2006). Language learning strategies and communication strategies: A synthesis. *Indian Journal of Applied Linguistics*, 32(1 & 2), 23–40.
- Jackson, C. N. (2007). The use and non-use of semantic information, word order, case markings during comprehension of L2 learners of German. *Modern Language Journal*, 91(3), 418–432.
- Jackson, C. N. (2008). Processing strategies and the comprehension of sentence-level input by L2 learners of German. *System*, 36(3), 388–406.
- Jayaseelan, K. A. (1996). Should the Language Acquisition Device be a ‘Black Box’ to the Language Teacher? *Indian Journal of Applied Linguistics*, 22(2), 41–56.
- Jha, A. (2014). Need-based English language curriculum for undergraduates pursuing technical and engineering courses: A study in ESP: E. Tech. Edn. P. Unpublished Ph.D Thesis JNU, New Delhi.
- Jones, L. (2007). *The student-centered classroom* (p. 41). Cambridge: Cambridge University Press.
- Krazano-wski, M. (2007). *Current Developments in English for Academic, Specific and Occupational Purposes*. Canterbury: IATEFL, (ESPSIG).
- Krashen, S. D. (1976). Formal and informal linguistic environments in language acquisition and language learning. *TESOL Quarterly*, 10(2): 157–168.
- Krashen, S. D. (1979). A response to Mc Laughlin, ‘The Monitor Model’: Some methodological considerations. *Language Learning*, 29(1), 151–157.
- Krashen, S. D. (1981). *Second Language Acquisition and Second Language Learning* (pp. 19–39). Oxford: Pergamon.
- Krashen, S. D. (1985). *The Input Hypothesis: Issues and Applications*. London: Longman.
- Krashen, S., & Scarcella, R. (1978). On Routines and Patterns in Language Acquisition and Performance. *Language Learning*, 28(2), 283–300.
- Kumar, C. (2007). Remedial English Courses for the Marginalized: Case of JNU. Unpublished Ph. D Thesis JNU, New Delhi.
- Kumar, U. (2009). Neural Network of Reading. *Indian Linguistics*, 70(1–4), 179–186.
- Lakoff, G. (1977). Linguistic gestalts. In W.A. Beach, S.E. Fox, S. Philosoph (Eds.), *Papers from the Thirteenth Regional Meeting* (pp. 236–287), Chicago Linguistic Society, April 14–16, 1977. Chicago Linguistic Society. Chicago, Illinois: University of Chicago.
- Lauzon, V. F., & Doehler, S. M. (2013). Focus on form as a joint accomplishment: An attempt to bridge the gap between focus on form research and conversation analytic research on SLA. *International Review of Applied Linguistics*, 51(4), 323–351.

- Lawler, J., & Selinker, L. (1971). On Paradoxes, Rules, and Research in Second-Language Learning. *Language Learning*, 21(1), 27–43.
- Lee, C., Yang, M. (2002). Learning of English by Koreans: Cross—Sectional Study of Learner Language in EFL/ESL Situations. Unpublished Ph. D Thesis JNU, New Delhi.
- Leeson, R. (1975). *Fluency and language teaching*. Addison-Wesley Longman Ltd.
- Levelt, W. J. M. (1989). *Speaking: From Intention to Articulation*. Cambridge: The MIT Press.
- Levelt, W. J. M. (1999). Language production: A blueprint of the speaker. In C. Brown & P. Hagoort (Eds.), *Neurocognition of Language*. Oxford: Oxford University Press.
- Macnamara, J. (1973). Nurseries, streets and classrooms: some comparisons and deduction. In J. W. Oller (Jr) & P.A. Richard-Amato (Eds.) 1983, *Methods that Work: A Smorgasboard of Ideas for Language Teachers*. Rowley: Newbury House.
- Mahto, R. N. (2014). Learning of English Word Order by the Speakers of Hindi Pursuing Bachelor's Degree at Delhi University: A Study in Error Analysis. Unpublished Ph. D Thesis JNU, New Delhi.
- McLaughlin, B., Rossman, T., & McLeod, B. (1983). Second language learning: an information-processing perspective. *Language Learning*, 33, 135–158.
- Miesel, J., Clahsen, H., & Pienemann, M. (1981). On determining developmental stages in natural SLA. *Studies in Second Language Acquisition*, 3, 109–135.
- Miller, G. A. (1956). The Magical number seven, plus or minus two: some limits on our capacity for processing information. *The Psychological Review*, 63, 81–97.
- Mendelsohn, D. J. (1994). *Learning to Listen: A Strategy-Based Approach for the Second-Language Learner*. San Diego: Dominie Press.
- Modhish, A. S. (2006). Teaching English Writing Skills to the Speakers of Arabic Pursuing a Bachelor's Degree in Education: A Study in EFL. Unpublished Ph.D Thesis JNU, New Delhi.
- Morrow, K. (1981). Principles of communicative methodology. In Johnson & Morrow (Eds.) 1981, *Communication in the Classroom*, London: Longman.
- Myers, J. L., & Chang, S. (2009). A multiple strategy based approach to word and collocation acquisition. *International Review of Applied Linguistics*, 47(2), 179–207.
- Narang, V. (1996). *Communicative Language Teaching*. New Delhi: Creative Books.
- Narang, V. (Ed.). (2006). *Contemporary Themes and Issues in Language Pedagogy*. Delhi: Book Plus.
- Narang, V. (2008). *Mapping Language. Mind and Brain*, Vol. I–III. New Delhi: Yash Publications.
- Narang, V. (Ed.). (2013). *Contemporary Issues in Learning Theories and Pedagogical Practices Vol I & Vol II* Hyderabad: Orient Black Swan.
- Narayanan, R., Nair, N. R., & Iyyappan, S. (2008). The role of attitude factors in English language learning among engineering students. *Indian Linguistics*, 69(1–4), 275–288.
- Nattinger, J., & De Carrico, J. (1992). *Lexical Phrases and Language Teaching*. Oxford: OUP.
- Newmark, L. (1966). How not to interfere with language learning. *International Journal of American Linguistics*, 32(1), 77–83.
- Nystuen, R. (2009). Understanding today's Learners and Meeting their Needs through Differentiation. <http://www.scribd.com/doc/11582470/Understanding-Todays-Learners-and-MeetingTheir-Needs-Through-Differentiation>
- Pandey, G. P. (2011). Learner-Centred Approach to ELT for BBS: A Study in ESP-ESBP for Nepalese Undergraduates. Unpublished Ph.D Thesis JNU, New Delhi.
- Pienemann, M. (1998a). Development Dynamics in L1 and L2 acquisition: Processability theory and generative entrenchment. *Bilingualism: Language and Cognition*, 1, 1–20.
- Pienemann, M. (1998b). *Language Processing and Second Language Development Processability Theory*. Amsterdam: John Benjamins.
- Pienemann, M. (2003). Language Processability Capacity. In C.J. Doughty, M.H. Long (Eds.), *The Handbook of SLA* (pp. 679–714). Oxford: Blackwell.
- Pinker, S. (1999). *Words and Rules: The Ingredients of Language*. London: Wiedenfeld & Nicolson.

- Poehner, M. E., & Compernelle, R. A. V. (2013). L2 Development around tests: learner response processes and dynamic assessment. *International Review of Applied Linguistics*, 51(4), 353–377.
- Prabhu, N. S. (1987). *Second Language Pedagogy*. Oxford: Oxford University Press.
- Qassim, A.H.A. (2010). Arabic Speakers Learning English as a Foreign Language: A Study of the Errors of Word order and concord. Unpublished Ph.D Thesis JNU, New Delhi.
- Reyes, P.M., & Rodríguez, J.F. (2005). *Teaching English in Mixed-ability Classrooms*. Malmö högskola.
- Ritterbusch, R., LaFond, L., & Agustin, M. (2006). Learner difficulties with German case: Implications from an action research study. *Die Unterrichtspraxis/Teaching German*, pp. 30–45.
- Rivers, W.M. (1972). *Speaking in many tongues: Essays in foreign-language teaching*. Rowley: Newbury House.
- Robinson, P. (2001). Task complexity, task difficulty and task production: exploring interactions in a componential framework. *Applied Linguistics*, 22, 27–57.
- Rupp, A. A., Ferne, T., & Choi, H. (2006). How assessing reading comprehension with multiple-choice questions the construct: a cognitive processing perspective. *Language Testing*, 23, 441.
- Sakai, H. (2008). An Analysis of Japanese University Students' Oral Performance in English Using Processability Theory. *System*, 36(4), 534–549.
- Saville-Troike, M. (2006). *Introducing SLA*. Cambridge: Cambridge University Press.
- Scarcella, R.C., & Krashen, S.D. (1980). Research in Second Language Acquisition: Selected Papers of the Los Angeles Second Language Acquisition Research Forum. Issues. In *Second Language Research*. Rowley: Newbury House Publishers, Inc., 01969.
- Selinker, L. (1972). Interlanguage. *International Review of Applied Linguistics*, 10, 209–231.
- Shamsaddini, M.R. (2005). Developing a model for ESP: Teaching of English to students of Engineering in Booshehr University, Iran. Unpublished Ph.D Dissertation JNU, New Delhi.
- Shiffrin, R. M., & Scheinder, W. (1977). Controlled and Automatic Human Information Processing. II Perceptual Learning, Automatic Attending, and a General Theory. *Psychological Review*, 84, 127–190.
- Siyanova-Chanturia, A., Conklin, K., & Schmitt, N. (2011). Adding more fuel to the fire: An eye-tracking study of idiom processing by native and non-native speakers. *Second Language Research*, 27(2), 251–272.
- Solso, R. L. (1988). *Cognitive Psychology* (2nd ed.). Boston: Allyn and Bacon Inc.
- Speidel, G.E. (1989). *The Many Faces of Imitation in Language Learning*.
- Speidel, G. E. (1987). Conversation and language learning in the classroom. *Children's Language*, 6, 99–135.
- Suresh, P. (2000). Reading skills and strategies: a study of undergraduate speakers of Tamil learning English at Salem. Unpublished PhD Thesis, JNU, Delhi.
- Swain, M. (1985). Communicative competence: some roles of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.), *Input in SLA*. Newbury House: Rowley.
- Tavakoli, P. (2009). Assessing L2 task performance understanding effects of task design. *System*, 37(3), 482–495.
- Taylor, L. M. (2005). *Introducing Cognitive Development*. New York: Psychology Press.
- Temple, L. (1997). Memory and processing modes in language learner speech production. *Communication & Cognition. Monographies*, 30(1–2), 75–90.
- Tice, J. (1997). *The mixed ability class: [full of practical ideas, photocopiable activities, development tasks, jargon free]*. Richmond Publishing.
- Van Patten, B. (1990). Attending to form and content in the input. *Studies in Second Language Acquisition*, 12, 287–301.
- Van Patten, B. (1996). *Input-processing and Grammar Instruction in SLA*. New Jersey: Ablex.
- Van Patten, B. (2003). *From Input to Output: A Teachers' Guide to SLA*. New York: McGraw Hill.

- Van Patten, B. (2004). Input Processing in SLA. In B. Van Patten (Ed.), *Processing Instruction: Theory, Research and Commentary*. New Jersey: Lawrence Erlbaum.
- Varalakshmi, V. (1993). Acquired and learnt elements in the 'prepared' speech performance of adult learners of English. Unpublished M.Phil Thesis Hyderabad, India: EFLU.
- Varnosfadrani, A.D. & Basturkmen, H. (2009). The effectiveness of implicit and explicit error correction on learners' performance. *System*, 37(1), 82–98.
- Wasilow, T. (2009). Implications of Metacognition on Instructional Technology for Today's Differentiated Learners. *Educational Communications and Technology* 802, University of Saskatchewan, pp.1–10.
- Wei, Y. & Lei, L. (2011). Lexical bundles in the academic writing of advanced Chinese EFL Learners. *RELC Journal* 42(2), 155–166.
- Weinert, R. (1995). The role of formulaic language in second language acquisition: A review. *Applied Linguistics*, 16(2), 180–205.
- Wendel, J. (1997). Planning and second language production. Unpublished Ed.D Dissertation, Temple University Japan.
- Widdowson, H.G. (1978). *Teaching language as communication*. Oxford: Oxford University Press.
- Wray, A. (2002). *Formulaic Language and the Lexicon*. Cambridge: Cambridge University Press.
- Yuan, F., & Ellis, R. (2003). The effects of pre-task planning and online planning on fluency, complexity and accuracy in L2 monologic oral production. *Applied Linguistics*, 24, 1–27.
- ZhaoHong, H. (2009) The learner spontaneous processing of input. [https://gurt.georgetown.edu/invited\\_panels2\\_2009#han](https://gurt.georgetown.edu/invited_panels2_2009#han). Accessed 21 March 2016.

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