

The role of input and output tasks in grammar instruction: Theoretical, empirical and pedagogical considerations

Abstract

In this paper a review of the role of input, output and instruction in second language acquisition is provided. Several pedagogical interventions to grammar instruction (e.g., processing instruction, input enhancement, structure output and collaborative output tasks) are presented and their effectiveness reviewed. A final and overall evaluation is provided at the end of the paper.

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Key words: Input, Input Enhancement, Output, Processing Instruction
Collaborative Output Tasks, Structured Output tasks

Introduction

The role of input and output tasks in grammar instruction has been investigated from different research perspectives using various pedagogical interventions (for recent reviews see Larsen-Freeman, 2015; Pawlak & Mystkowska-Wiertelak, 2012). The aim of this paper is to examine the characteristics of these pedagogical treatments and to discuss the implications for second language acquisition (SLA henceforth) and language teaching.

The paper offers an overview on the current theoretical and pedagogical debate around the role of input, output and instruction in second language acquisition and language teaching. Four input and output-based instructional interventions to grammar instruction will be reviewed. These pedagogical options will be introduced (description and theoretical background), the main empirical findings briefly presented, and implications for SLA and language teaching highlighted.

A final assessment of the role of grammar tasks (the necessity to move from grammar input to grammar output tasks) in SLA and language teaching will be provided.

The role of input

Input is the language raw data (Carroll, 2001) that learners hear or read and entails a specific communicative intent. Corder (1967) makes a distinction between input and intake. He defines input as what is available to the learner, whereas intake refers to what is actually internalized by the learner and eventually becomes part of the interlanguage system. In all SLA contemporary theories input plays a key role.

For *Universal Grammar* (UG henceforth) theory for example, input interacts with UG principles and internal mechanisms (see Whong, Gil & Marsden, 2013).

In Krashen's *Monitor theory* (1982, 2009) input is a key factor and acquisition requires first and foremost exposure to comprehensible input (input that is easily processed). According to Krashen's input hypothesis, acquisition takes place when the learner understands input that contains grammatical forms that are at a higher level than the current state of the learner's interlanguage. For SLA to take place, learners must be exposed to comprehensible and message-oriented input. Input is the primary data base on which learners build a linguistic system.

In VanPatten's model of *Input Processing* (1996, 2004, 2015a), only part of the input is filtered through intake into the developing system and eventually becomes available to the learner for output purposes. Changing the way learners process input and enriching their intake might have an effect on the developing system that subsequently should have an impact on how learners produce the target language. Input processing is concerned with those psycholinguistic strategies and mechanisms by which learners derive intake from input. In VanPatten's theory, when learners attend or notice input and process the message, a form-meaning connection is made. Developing the learners' ability to map one form to one meaning is therefore essential for acquisition.

For *Emergentism* (Ellis, 2007; Ellis & Wulff, 2015), the learner is like a human computer that process and tallies linguistic information in the input. In this theory input plays even a more important role as there are no, according to this theory, special internal mechanisms that contain pre-existing linguistic information.

In the *Interaction Hypothesis* (Gass 2003, Gass & Mackey, 2006, 2015), input is seen as a significant element/factor for acquisition without which learners cannot acquire a language. Ellis (1997) distinguishes two types of input: interactional and non-interactional. In the case of interactional input (cf. also Long 2007; Pica 1994) he refers to input received during interaction where there is some kind of communicative exchange involving the learner and at least another person (e.g. conversation, classroom interactions). In the case of non-interactional input he refers to the kind of input that occurs in the context of non-reciprocal discourse and learners are not part of an interaction (e.g. announcements). In the former case, learners have the advantage of being able to negotiate meaning and make some conversational adjustments. This means that conversation and interaction make linguistic features salient to the learner.

On the whole, input is absolutely necessary and there is no theory or approach to SLA that does not recognize the importance of input. However the question is: is input sufficient for language acquisition? White (2003, 2015) has argued that some forms or structures are more difficult to be acquired through positive evidence alone. This is particularly the case of a structure that is not part of the UG system. Collins and Ellis (2009) have suggested that there are a number of factors which affect the acquisition of linguistic constructions: the frequency and saliency of features of forms in oral input; their functional interpretations; and the reliabilities of their form-function mappings.

Overall, language teachers should consider the use of tasks devised in a way that,

on one hand, enhance the grammatical features in the input, and on the other hand, provide learners with opportunities to focus on meaning (making correct form-meaning mappings).

The role of output

Output is the language that L2 learners produce, and can be both written and oral. Output is the ability to express a particular meaning by retrieving a particular form or structure. The ability to string structures and forms together.

For the *Monitor Theory* output plays a little role in acquisition as the key ingredient is input.

Universal Grammar sustains that a good deal of competence cannot come from learner production and can only come from input triggering universal mechanisms.

The *Interaction Hypothesis* has examined interactions with and between non-natives to explore what kinds of modifications are made during conversations and how this might impact learner development. Output causes changes in the input learners receive. Feedback could also act as a signal that pushes learners to scan the input so that language is better comprehended. Thus, there seems to be an indirect causal link between output and acquisition, with input appearing again as a major and critical intervening factor.

Swain (1985, 1995) has developed a hypothesis called *The Comprehensible Output Hypothesis* according to which, language production (oral and written) can help learners to generate new knowledge and consolidate or modify their existing knowledge. Swain (1995) assigns several roles for output:

1. Output practice helps learners to improve fluency.
2. Output practice helps learners to check comprehension and linguistic correctness.
3. Output practice helps learners to focus on form.
4. Output helps learners to realize that the developing system is faulty and therefore noticing a gap in their system.

Swain has pointed out that comprehensible input might not be sufficient to develop native-like grammatical competence and learners also need comprehensible output. Learners need “pushed output” that is speech or writing that will force learners to produce language correctly, precisely and appropriately. According to Swain (1995, 249) “producing the language might be the trigger that forces the learner to pay attention to the means of expression needed in order to successfully convey his or her own intended meaning”. To summarize, the four functions of output in SLA based on Swain’s ideas are: (1) testing hypothesis about the structures and meanings of the target language; (2) receiving crucial feedback for the verification of these hypotheses; (3) forcing a shift from more meaning-based processing of the second language to a more syntactic mode; and (4) developing fluency and automaticity in interlanguage production.

According to the *Processability Theory* (Pienemann & Lenzing, 2015), L2 learners draw upon our vast network of connections (access) to retrieve words (access a word)

and forms (e.g., access morphological inflections) to express meaning. There are a series of production procedures learners follow: lemma access (retrieving words) → Category procedure (e.g., use of inflections) → Phrasal procedure (use of inflections in a phrase) → Simplified – S – procedure (exchange information from inside the sentence) → S-Procedure (exchange information between internal constituents) → Subordinate clause procedure (exchange information across clauses).

The last significant function of output is to create greater automaticity, which is one pedagogical goal in SLA. Little effort is required to execute an automatic process, involved when the learner carries out the task without awareness or attention, as it has become routinized and automatized just as the steps involved in walking towards a bike, getting out the key, unlocking it, pushing it, getting on it and riding it, requiring little thought and less time. Skehan (1996) has proposed a series of possible contributions for output: output generates better input. Learners have the opportunity to negotiate meaning and provide input for somebody else; output promotes syntactic processing. Learners have the opportunity to pay attention to the means by which meaning is expressed; output helps learners in their hypothesis about grammar. Learners have the opportunity to try out hypotheses; output helps the development of discourse skills.

Learners have the opportunity to move from sentence to discourse production. According to VanPatten the ability to produce forms and structures in output does not necessarily mean that forms and structures have been acquired. We need to distinguish between output as interaction with others and output as practice of forms and structures. In VanPatten's (2003) view, learners implicit system develops as learners process the input they receive. Output promotes noticing of linguistic features in the input and conscious awareness of language and language use. It can also provide additional input to learners so that they can consolidate or modify their existing knowledge. In Van Patten's (2003) view, the role of output is important as it promotes awareness and interaction with other learners) but it does not play a direct role on the creation of the internal linguistic system. Van Patten (2004, 42) have sustained that "we have little if any experimental data that clearly show that acquisition is somehow output dependent". VanPatten (2003, 20) makes also a clear distinction between skill acquisition and the creation of an implicit system. Conscious presentation and manipulation of forms through drills and output practice might help learners to develop certain skills to use certain forms/structures correctly and accurately in controlled tasks, but it has very little impact on the development of the implicit system (mental representation) responsible for acquisition.

Overall language teachers should consider grammar output tasks which are meaning-based. During effective grammar output tasks learners must make output that encodes a specific message.

The role of instruction is second language acquisition theories

The Monitor Theory (Krashen, 1982, 2009) argues that instruction plays a limited role in second language acquisition. Krashen suggests that L2 learners acquire language mainly through exposure to comprehensible and meaning-bearing input. Learners internalize grammar by being exposed to sample of language in a specific

communicative context. The acquisition of the grammatical system of another language is driven by exposure to the input and not by practicing grammatical rules. *The Monitor Theory* also indicates that grammar instruction is constrained by the acquisition of some linguistic features in a fixed and predicted order.

Morphological features such as the progressive *-ing* in English is acquired (no matter the learner's L1) before the regular past tense *-ed*, or irregular past tense forms, which is acquired before third-person singular *-s*. Instruction is therefore constrained by an universal and predictable order of acquisition based on UG assumption.

Universal Grammar Theory (White, 2003, 2015) views language as an abstract and complex system. Although many aspects of language are acquired by interaction with input (e.g. syntax, morphology, lexicon), one exception are those aspects of language that are universal and built in prior to exposure to the input language. All humans have universal features of language which constrain the acquisition of grammar. For example, sentences have underlying hierarchical structure consisting of phrases (e.g. Noun phrase, Verb phrase) which require a 'head' and a 'complement'. This information is built into L2 learners' internal system and learners make use of the input to process any possible variations in the target language. Instruction has no effect on this subconscious knowledge. Chomsky (2005) has once again highlighted the crucial role that input plays in language acquisition. O'Grady et al. (2009) have emphasized the role of frequency of form-meaning connections for second language acquisition. Montrul (2009) argued that high quality linguistic input is essential for successful language acquisition.

Processability Theory (Pienemann, 1998; Pienemann & Lenzen, 2015) argues that L2 learners acquire single structures (i.e. negation, question formation) through predictable stages. According to the *Processability Theory*, instruction is constrained by these developmental stages (there is a sequence of acquisition of particular features), and L2 learners follow a very rigid route in the acquisition of grammatical structures. The main implication of this view is that the role of instruction is limited and constrained by L2 learner's readiness to acquire a particular structure. Instruction might be detrimental to acquisition if it does not consider learners' current developmental stage. (*Teachability Hypothesis*) Instruction must consider learners' psycholinguistic readiness for it to be effective.

Input Processing Theory (VanPatten, 1996, 2004, 2015a) refers to how learners initially perceive formal features of language input, and the strategies or mechanisms that might guide learners in processing them. Learners seem to process input for meaning (words) before they process it for form (grammatical features). Learners seem to parse sentences by assigning subject or agent status to the first noun or pronoun they encounter in a sentence. These default strategies cause a delay in the acquisition of formal properties of the target language. According to this theory, instruction is effective and beneficial if it manipulates input so that learners process grammar more efficiently and accurately. The pedagogical intervention derived from this theory is called *Processing Instruction*. Learners should be exposed to meaningful input that contains many instances of the same grammatical meaning-form relationship (e.g. verb ending *-ed* encodes a past event). Grammar instruction should be designed to circumvent false default processing strategies and replace them with appropriated ones.

Skill-Learning Theory (DeKeyser, 2015) views second language acquisition as a process which entails moving from controlled mode (declarative knowledge) to automatic mode (procedural knowledge) through repeated practice. Learners need to

be taught explicitly and need to practice the various grammatical features and skills until they are well established (fluency). Instruction is beneficial when it helps explicit knowledge to become proceduralised.

For *Emergentism and Usage-based Theories* (Ellis & Wulff, 2015), second language acquisition is mainly implicit and frequency in the input language plays a key role. Language and its properties emerge over time and are the result of cognitive mechanisms interacting with input.

Although the role of instruction is limited and is not always effective, it can have a facilitative role in developing ‘noticing’ of target forms which might not be salient in the input language. Attention to language forms is necessary, however instruction is not always effective and this is due to a number of factors (e.g. instruction is sometime provided when learners are not psycholinguistically ready to acquire the next structure or form, there is a mismatch between explicit knowledge and implicit mental representation).

For the *Interaction hypothesis* (Gass & Mackey, 2015), comprehensible input might not be sufficient to develop native-like grammatical competence and L2 learners also need comprehensible output. Learners should be involved in meaningful learning tasks where they have opportunities to communicate and negotiate meaning. Instruction might be beneficial if it is provided by enhancing the input through the use of different techniques (e.g. input enhancement, textual enhancement). It might have a facilitative role in helping learners pay attention to the formal properties of a target language without the need of metalinguistic discussion.

Sociocultural Theory (Lantolf, Thorne, & Poehner, 2015) regards instruction as crucial to L2 development in the classroom and should be geared to the *Zone of Proximal Development* that is beyond learners’ actual development level. The theory suggests that during instruction (metalinguistic and explicit in nature), awareness of the structure and function of language is developed by using it socially. The environment provides the context and assists in the understanding of grammatical properties of the language.

A review of contemporary theories on the role of instruction in the field of second language acquisition leads to the following conclusions:

- Grammar instruction does not alter the route of acquisition (i.e., acquisition orders and developmental sequences);
- Grammar instruction may have some beneficial effects on speeding up the rate of acquisition;
- Grammar instruction as input manipulation can facilitate language processing;
- Grammar instruction might be able to foster explicit and implicit knowledge;
- Grammar instruction can foster learners’ attention to language forms in the course of meaningful task interaction.

As a result of these findings a number of pedagogical interventions have been proposed and researched in alternative to traditional grammar instruction which consists of paradigmatic explanation followed by mechanical practice (the drilling forms and structured of the target language). These findings indicate that (a) grammar instruction might facilitate SLA if it is provided in combination with a focus on meaning, and that (b) grammar instruction should move from input only (manipulating input) to output practice. Grammar tasks should ensure that learners first process input language correctly and efficiently and then develop the competence to access these information about target features in their internal systems to create output.

Pedagogical interventions in L2 grammar instruction

One of the key issues in SLA concerns the role of grammar instruction. Does grammar instruction make a difference? Is there an effective pedagogy to teach grammar that is better than others? These are some of the questions that scholars in this field have addressed in their attempt to find the most appropriate and effective way to learn grammar (cf. Nassaji & Fotos, 2011). While many scholars address some of these questions to develop a better understanding of how people acquire grammar, language instructors and teachers are in search of the most effective way to approach the teaching of grammar in the language classroom. In this section four pedagogical interventions in L2 grammar instruction will be reviewed.

Processing Instruction

Processing Instruction aims at changing the way input is perceived and processed by L2 learners. Processing instruction is an input-based approach to grammar instruction predicated on the *Input processing theory* (VanPatten, 1996, 2004, 2015a; VanPatten & Jegerski, 2010). Input processing refers to the fact that language learners are exposed to input which contains linguistic forms. When L2 learners process input, they have limited resources to ensure that they make correct form-meaning connections. When they hear a sentence such as ‘I talked to my teacher’ and understand that ‘talked’ means that the action is in the past a form-meaning connection is made. They cannot just notice the form, as they need to comprehend the meaning that the particular form encodes. VanPatten (2015b) has identified two main processing strategies learners might use when they are exposed to language input.

According to the *Primacy of Meaning Principle*, learners will first process input for meaning before they process the linguistic form. The result of this will be that learners will not make natural connections between forms in the input and their meanings (e.g., tense markers, aspectual markers, subject-verb agreement, subjunctive mood). According to the *First Noun Principle*, learners will tend to process the first noun or pronoun they encounter in a sentence as the subject or agent. The result of this will be that learners will misinterpret sentences in which the first element in a sentence is not the subject or agent (e.g., word order, passive constructions, case marker, object pronouns).

Empirical research investigating the effects of Processing Instruction (Benati & Lee, 2015) has demonstrated that it is a more effective pedagogical intervention than traditional instruction and other more output-based instructional treatments on developing learners’ ability to process input (e.g., First Noun Principle, Lexical Preference Principle) in various languages (French, Italian, Spanish, English, Russian, Japanese, German, Arabic among others) and linguistic forms (e.g., Spanish past tense, Italian future tense, copular verbs in Spanish (*ser* and *estar*), English causative forms, English past simple tense, English present simple tense, Japanese passive constructions, Arabic gender agreement, and French *faire* causative). These positive results are also measurable on L2 learners’ ability to produce the target linguistic features during output practice. Through *Processing Instruction*, L2 learners from different L1s (e.g., English, Italian, Chinese, Japanese, Korean, German among others) gain the ability to interpret and produce target items in sentence and discourse level tasks (Benati & Lee, 2010) and they seem to be able to transfer this

processing training into the processing and producing of another form (with similar processing problems) on which they had received no instruction (Benati & Lee, 2008). *Processing Instruction* is a durable, long-lasting and effective pedagogical intervention no matter the age (Angelovska & Benati, 2013, 2015), aptitude and motivation of the learners (Benati & Farhat, in preparation). A meta-analysis on the effects of *Processing Instruction* is under way (cf. Leiser, in preparation).

Processing Instruction aims at altering the processing strategies/principles “learners take to the task of comprehension and to encourage them to make better form-meaning connections than they would if left to their own devices” (Van Patten, 1996:60). *Processing Instruction* is an input-based option to grammar instruction which guides L2 learners to focus on small parts/features of the targeted language when they process the input. Its characteristics have been described in details in previous literature (VanPatten, 1996, 2015b; Lee & VanPatten, 2003; Farley, 2005, Wong, 2004, 2005; Lee & Benati, 2007a, 2007b, Benati & Lee, 2008, Lee & Benati, 2009, Benati & Lee, 2010).

Processing Instruction consists of two main components: explicit information and structured input practice. The first component is the explicit information component. Learners are given explicit information about a linguistic structure or form. Forms or structures are presented one at a time e.g. regular past forms, passive constructions. The explicit information is used to alert L2 learners of possible processing problems (It is not traditional explicit information). L2 learners are given information on a particular processing principle that may negatively affect their picking up the form or structure during comprehension. The explicit information provided should help L2 learners to be aware of this processing problem when they process input.

The second component is the structured input practice component. After receiving explicit information, learners are pushed to process the form or structure through structured input activities. In structured input activities the input is manipulated in particular ways to make learners become dependent on form and structure to get meaning. As outlined by Wong (2004:35) *Processing Instruction* “pushes learners to abandon their inefficient processing strategies for more optimal ones so that better form-meaning connections are made”.

Van Patten and Sanz (1995) have originally produced the following guidelines for developing structured input activities:

- a. Present one thing at a time
- b. Keep meaning in focus
- c. Move from sentences to connected discourse
- d. Use both oral and written input
- e. Have the learner do something with the input
- f. Keep the learner’s processing strategies in mind

Wong (2004:37) has emphasized that “for an activity to be a structured input activity, that activity must somehow push learners to circumvent an inefficient processing strategy”. Identifying the processing problem in a target language is the most important step in developing structured input activities. Structured input activities are of two types: referential and affective. Referential activities are those for which there is a right or wrong answer and for which the learner must rely on the targeted grammatical form to get meaning. Affective structured input activities are

those in which learners express an opinion, belief, or some other affective response and are engaged in processing information about the real world. Learners might be asked to express an opinion or view about something. Learners must be engaged in processing the input sentences and must respond to the input sentence in some way through referential and affective types of structured input activities. *Processing Instruction* is a pedagogical intervention that through the manipulation and restructuring of the input might help learners to acquire grammatical and syntactic features of a target language.

Input enhancement pedagogical treatments (textual enhancement and input flood)

Scholars in second language acquisition have agreed that L2 learners must be exposed to input and that input must be comprehensible and meaning-oriented in order to facilitate the L2 acquisition. Krashen (1982) has argued that conscious learning has no effects on the ability of L2 learners to acquire and use an L2 in spontaneous communication. Schmidt (1990) has suggested that L2 learners require attention in order to process successfully forms in the input. Learners must first notice a form in the input for that form to be processed. Given the importance of ‘noticing’ a form in the input the question is: how can we best facilitate the noticing (noticing is different than processing where learners have to make a connection between one form and its meaning) of a certain form in the input? Input enhancement has been defined by Sharwood-Smith (1991) as a process by which linguistic data will become more salient for L2 learners. This form of intervention (enhancing the input to allow learners to notice some specific forms in the input) should effect changes in learners’ linguistic competence. Sharwood-Smith (1991, 1993) has proposed various techniques to enhance the input which varies in terms of explicitness and elaboration. A practical example would be to underline or to capitalize a specific grammatical item in a text to help learners notice that particular grammatical feature (textual enhancement). A different technique would be to modify a text so that a particular target item would appear over and over again so that the text will contain many more exemplars of the same feature (input flood).

Input enhancement is a pedagogical intervention to grammar instruction through which input is made more noticeable to the L2 learner. The results of the empirical research investigating the effects of textual enhancements are quite mixed. Overall, findings have shown that textual enhancement has positive effects (Benati, 2016). The meta-analysis conducted by Lee & Huang (2008) conducted a meta-analysis of existing research on the effects of textual enhancement. Despite showing small-size effects for textual enhancement, their analysis has indicated that input enhancement is an effective instructional tool and it is better than no enhancement of forms. However, a number of variables might constitute a constraint (e.g., proficiency level, the developmental stage and the degree of readiness of the learner, the type of linguistic feature chosen, and the treatment intensity).

Input enhancement techniques help teachers to expose learners to comprehensible input and positive evidence while at the same time drawing learner’s attention to some linguistic properties of the target language. In order to help L2 learners notice a

particular feature we might want to provide learners with typographical cues such as bolding and italics to draw their attention to grammatical forms in the text. This technique is called textual enhancement and it is used to make particular features of written input more salient with the scope to help learners notice these forms and make form-meaning connections. The target form is enhanced by visually altering its appearance in the text (italicized, bolded, underlined). Oral input enhancement can also be provided by using special stress, intonation and gestures in spoken input.

Designing input enhancement tasks will involve following these guidelines:

- a) Choose a grammatical feature learners need to notice;
- b) Highlight the feature in the text using a textual enhancement technique (e.g. bolding, underlining);
- c) Keep learner's attention on meaning;
- d) Do not provide any metalinguistic explanation.

The form has been highlighted in the dialogue with the use of a textual enhancement technique in the hope that learners will notice it. The advantages of this textual enhancement activity are listed as follows (Wong, 2005:56):

- 1) Learners can be exposed to more instances of the target form; there are more chances that they will notice the form;
- 2) Learners will be exposed to meaning-bearing input from this type of tasks;
- 3) It is a form of input enhancement that can be easily integrated and it is easy to use.

A review of the main empirical studies measuring the relative effects of input flood has showed that this instructional treatment (Benati, 2016) is effective in increasing learners' knowledge of what it is possible in the target language. Its effectiveness is determined by factors such as the length of the treatment, and the nature of the linguistic feature.

As Wong (2005: 37) has affirmed in input flood "the input learners received is saturated with the form that we hope learners will notice and possibly acquire. We do not usually highlight the form in any way to draw attention to it nor do we tell learners to pay attention to the form. We merely saturate the input with the form". When we design input flood activities instructors should follow these guidelines (Wong, 2005: 44):

- a) Grammatical tasks using input flood should either be used in written or oral input;
- b) The input learners receive must be modified so that it contains many instances of the same form/structure;
- c) Input flood must be meaningful and learners must be doing something with the input (i.e. reconstruct a story, draw a picture).

The main purpose of designing input flood activities is to help learners be exposed to a greater amount of input (through this technique) containing the target form (past tense is enhanced in the figure below) which will allow learners to notice and subsequently acquire this form (see figure 2.4). As pointed out by Wong (Wong, 2005:43) overall advantages for input flood are:

- 1) Input flood material can be used in texts and content that are familiar with L2 learners and for which learners are interested;
- 2) The instructor can simply manipulate any materials so that this input contains many uses of a particular target form.

The main advantage of input flood is that it provides comprehensible meaning-bearing input. It is also effective as it does not disrupt the flow of communication (Wong, 2005:42). However, as underscored by Wong (2005:43) “because this technique is so *implicit*, it is difficult for instructors to know whether learners are actually learning anything through the flood”.

Collaborative output tasks

Considering the various roles that output can have in second language acquisition, we need to look at various collaborative output tasks (e.g., dictogloss, jigsaw tasks) that might help learners in acquiring the grammatical properties of a target language. Pushing learners to produce output through collaborative tasks might facilitate the accurate and appropriate use of language forms and structures.

Dictogloss is a type of task-based collaborative output activity which aims at helping learners to use their grammar resources to reconstruct a text and become aware of their own shortcomings and needs. It consists of a listening phase and a reconstruction phase where learners are asked to reconstruct a text rather than write down the exact words that are dictated. As the text is read at a natural speed, students cannot write down every word but only key words and they have to understand the meaning and use their knowledge of grammar in order to reconstruct it.

Wajnryb (1990) has outlined that the dictogloss procedure consists of four stages:

- a) Preparation: when learners are informed about the topic of the text and through a series of warm-up discussions they are given the necessary vocabulary to cope with the task. It is at this stage that they are also organized into groups;
- b) Dictation: when learners hear the text for the first time at natural speed. The first time they do not take any notes. The second time, learners are asked to note down key words to help them remember the content and reconstruct the text;
- c) Reconstruction: when learners work together in small groups and they need to reconstruct the text with correct grammar and content;
- d) Analysis and Correction: when learners analyze, compare and correct their texts. This is achieved with the help of the teacher and the other groups.

Dictogloss is a very effective technique for a number of reasons: learners are encouraged to focus their attention on form and meaning and all four language skills are practiced; learners develop a need for communication and for group work; learners can monitor and adjust their interlanguage; learners have ample opportunity for discussion and negotiation.

In a jigsaw collaborative output task, learners can work in pairs or in small groups. Each pair or group has different information and they have to exchange their information to complete the task. Jigsaw tasks consist of the following procedure:

- A pair of learners or a group is each given a partially completed text/chart/passage. The text includes a cloze component;
- One grammatical form is removed from the text (learner’s version);
- Learners will all have to request the instructor to supply missing information in order to complete the task.

This type of task provides learners with an opportunity to direct their attention to the target form. It also provides a great amount of negotiation as all participants have to speak and understand each other to complete the task.

In a typical jigsaw task, learners are asked to work in pairs. They each have different information and they have to give and receive information to complete a

task. Each pair is given a partially completed chart containing different information about four people (Paul, John, Sarah, Joanne). The information might be about where they come from, how many other people live in their house, how many pets they have, what their favourite sports are, and what music they like best. Learners take turns to ask and answer questions regarding the four people without looking at their partner's chart. Both partners must request and supply missing information in order to complete all the details of the four people.

Several studies have empirically examined (cf. Nassaji, 2016) the role of collaborative output tasks (dictogloss and jigsaw collaborative output tasks). The overall findings showed that when learners are involved in the co-production of language through such tasks, they noticed gaps in their knowledge and they make links between one form and one meaning. These collaborative output tasks also promote opportunities for attention to form and corrective feedback.

Structured output tasks

Structured output tasks are an effective alternative to mechanical output practice. As stated by Lee and VanPatten (2003) structured output activities have two main characteristics: (1) They involve the exchange of previously unknown information; and (2) They require learners to access a particular form or structure in order to process meaning. The guidelines to produce structured output tasks are the following:

1. Present one thing at a time
2. Keep meaning in focus
3. Move from sentences to connected discourse
4. Use both oral and written output
5. Others must respond to the content of the output
6. The learner must have some knowledge of the form or structure

The overall results (cf. Benati and Batziou, 2017) from empirical studies investigating the effects of structured output tasks vs. structured input tasks have indicated that structured input practice is more effective at altering input processing problems (Primacy of Meaning and First Noun Principle) and subsequently to have an impact on learners' developing system and what learners can access under controlled situations. However, structured output practice is effective if it follows structured input practice.

Research investigating the role of input and output tasks reaffirms the importance of input-based practice as a key pedagogical tool and makes a contribution to the view that this practice should precede output practice (structured-input grammar tasks should precede structured-output grammar tasks).

An evaluation

Traditional grammar instruction is not an effective pedagogical intervention to grammar instruction. Paradigms are not the way information is organized and processed in our mind/brain. Despite the fact that the effects of grammar instruction are limited and constrained, there are pedagogical interventions that in certain conditions enhance and speed up the way languages are learned, and are an effective way to provide grammar instruction (cf. Benati, 2013).

Processing Instruction helps learners to process input correctly and efficiently and therefore increases learner's intake of the target language. Input enhancement treatments provide language learners with access to comprehensible input and positive evidence. Input enhancement helps learners to pay attention to grammatical forms in the input. Collaborative output grammar tasks promote the opportunity for negotiation of form and at the same time develop learners' linguistic skills (noticing). Structured output tasks should follow structured input tasks to ensure learners develop the abilities to interpret and produce sentence and discourse containing a target linguistic feature. Grammar instruction should move from input to output practice.

Language learners create an abstract system similar to the way in which L1 learners do. Mental representation of a language bears no resemblance to what is traditionally taught and practiced (paradigms + drills practice). Mental representation builds up over time due to consistent and constant exposure to input data and interaction with universal properties (VanPatten and Rothman, 2014). Therefore, paradigms lack of psycholinguistic validity and drill practice does nothing to foster the development of representation, but instead might develop a learning-like behavior (learning how to do something but not developing the underlying competence about something).

Knowing this clearly indicates that grammar tasks should initially be designed and used to facilitate for learners to notice and process forms in the input and help them to make correct form-mapping connections. Output grammar tasks (e.g., collaborative tasks and structured output tasks) should therefore follow input grammar tasks (e.g., structured input tasks, input enhancements treatments) and should be used to promote language production and the development of grammatical skills. Structured output tasks for example enable learners to access forms or structures in learners' developing system to communicate ideas (message). A coherent grammar lesson is one that takes students from noticing and processing a grammatical feature in the input to accessing the feature from the internal grammatical system for speech production.

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