Optimal and appropriate input in a second language: The potential of (modified-)elaborated input in distance and classroom learning

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**ABSTRACT**

Instructors’ difficulties in judging whether linguistic material is suitable for their students’ level seem to have been aggravated during the pandemic (Conti, 2021). In this situation, there is the risk of exposing learners to inappropriate input, which can be detrimental to language acquisition. The proposed solution, (modified-)elaborated input, is designed to increase comprehensibility without sacrificing the richness of authentic input, which is crucial for language acquisition (Long, 2015; 2020; O’Donnel, 2009; Yano, Long, & Ross, 1994). The features of elaborated input make its application beneficial in any kind of language course. In addition, in the context of online teaching, elaborated input can be a powerful tool to deal with the issue of input appropriateness. This work analyzes the theoretical underpinnings of elaborated and modified-elaborated input while providing a review of the existing empirical data supporting its effectiveness.

**Keywords:** INPUT APPROPRIATENESS, ELABORATED INPUT, MODIFIED-ELABORATED INPUT, DISTANCE LEARNING

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**Palabras claves:** ADECUACIÓN DEL INPUT, INPUT ELABORADO, INPUT MODIFICADO-ELABORADO, APRENDIZAJE VIRTUAL

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1 The present work stems from a close cooperation between the two authors. For the specific concerns of the Italian Academy, Silvia Scolaro is responsible for sections §1, §2 and §3; Ilaria Borro is responsible for sections §4, §5, §6 and §7.
1. The impact of the pandemic on teaching in Italy in the first months of 2020

As a result of the Covid-19 pandemic, schools in Italy, most of Europe, and many other countries were forced to switch from in-person to distance teaching and learning. The change was unexpected and rapid, finding teachers often unprepared and inexperienced, hence generating a range of pedagogical problems. The present contribution aims to address one of them, input appropriateness, and to propose a possible solution.

In Italy, the impact of the change from in-person to distance learning has been investigated through many surveys and questionnaires, which were sent out during the first few months of the pandemic. Some of them targeted teachers and other learners, and were created by single schools, universities or associations. Some dealt with general educational issues (e.g., Giovannella, Passarelli, & Persico, 2020; INDIRE, 2020a, 2020b; Lucisano, 2020) while others especially focused on second language teaching and learning (Celentin, Daloiso, & Fiorentino, 2020; Conti, 2021, this issue; Fragai, Fratter, & Jafrancesco, 2020). Many problems in language teaching emerge from the survey given in July 2020 by Gruppo di Ricerca e Azione sull’Apprendimento delle Lingue (GRAAL) and described in Conti (2021, this issue). Responses from 136 language teachers point to some of the most problematic aspects of the shift to computer-mediated teaching/learning, such as a decrease in the global engagement of the students, i.e., in interaction, autonomy and personal initiative.

One of the core aspects brought to light is the issue of the appropriateness of the input employed, which is the object of the present contribution. The data shows how, during the period of emergency distance learning, instructors felt they could not ascertain if the input provided in the second language was appropriate for the capabilities of their students.

In the questionnaire, teachers answered the following question:

To what degree did you perceive a difference between in-person and distance learning in terms of assessing whether the input proposed was appropriate for the learners’ level of proficiency? (Conti, 2021, this issue)

More than 50% of the respondents among the teachers stated that they found it more difficult to evaluate the appropriateness of the input used during online classes. About a third of them affirmed that they did not perceive any change, while only 16% saw an improvement.

Due to the lack of published empirical data specific to input appropriateness in online classes, this paper relies on the teachers’ perception and experience. The factors that could have had a negative impact on teachers’ impression of the input provided during online classes might be the reduction of reliance on paraverbal and non-verbal cues during computer-mediated lessons, the pressures of the novel emergency situation, and/or the lack of training on the use of Information and Communication Technologies (ICTs) for language teaching and assessment (Fragai et al., 2020; Giovannella et al., 2020). On the latter factor, while some teachers had the benefit of being well into the term and having already assessed the students, other courses had either just started or not started yet.

Given perceived difficulties in assessing their students’ level, it is likely that during online classes instructors could have employed input that was either too difficult or too simple, in other words, not comprehensible enough or over-simplified. This being the case, students would be exposed to inappropriate input (De la Garza & Harris, 2017; Long, 2020; Long & Doughty, 2009), i.e., input that is not optimal for language acquisition and therefore lacks efficacy in terms of didactic action.

The purpose of this work is to highlight how non-comprehensible and/or (over-)simplified input are detrimental to language acquisition, and to propose elaborated and modified-elaborated input as a possible solution, which is beneficial in both online and in-person teaching. In section 2, we detail the theoretical background for the psycholinguistic claims about issues with genuine and simplified input which are reported in Sections 3 and 4. In Sections 5 and 6, we respectively analyze the rationale and empirical evidence in support of (modified-)elaborated input, which is advisable not only in the distance-learning context but in any teaching modality and any language. The Appendix reports an example of classroom application of modified-elaborated input.

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2. Input in Second Language Acquisition

In order to discuss the role of input, the first step is to focus on the actual aim of language instruction. The general consensus in the literature is that the goal for language teaching is the creation of implicit rather than explicit knowledge (e.g., Long, 2017; Whong, Gil, & Marsden, 2014). The reason for prioritizing implicit knowledge over explicit knowledge is its positive: it is fast, durable, involved in real-time processing of language and therefore in comprehension and fluency. In addition, its automatic nature frees up cognitive resources so the speaker can concentrate on content and communication. In contrast, explicit knowledge is gained through intentional memorization, which makes its learning process faster and often preferred in classroom language instruction. However, it also requires time and a conscious effort to be applied, and it does not imply effective language use.

Crucially, implicit knowledge is acquired without awareness through meaningful language use and exposure, which makes the exposure of “communicatively embedded input” (VanPatten, 2017) essential for language acquisition. VanPatten defines input as “the language that a learner hears (or reads) that has some kind of communicative intent, that means that there is a message in the language that the learner is supposed to attend to” (2003, p. 26). The role of input is considered crucial in most of the leading linguistic, psycholinguistic and cognitive theories where it is considered as the main “data source” for language acquisition, activating implicit learning processes and mental representation of the language. According to generative linguistic theory, input is the catalyst to set language-specific parameters and substantiate intrinsic principles for Second Language Acquisition (SLA). Usage-based approaches require larger quantities of input, while the declarative/procedural model involves input immersion to work towards a native-speaker like neurocognitive processing of the language (VanPatten, Keating, & Wulff, 2020).

In the early stages of SLA research, Corder (1967) made an important distinction between input and intake: the first indicates the second language available to the learner, whereas the second refers to what is actually internalized (or, in Corder’s terms, “intake,” p. 165) by the learner. Between input and intake, a learner goes through a cognitive process: firstly, the input itself needs to be accessible to the learner, and secondly, the learner tries to process and encode it through the mental representation of the language.

In order for this process to take place and result in proper L2 acquisition, the input to which learners are exposed must meet two criteria: first, it has to be comprehensible to the speaker; second, it has to be rich, that is, to mirror real language in use and to include the vocabulary and structures that learners need to acquire. Finding a balance between these two features of optimal input constitutes a crucial challenge for language instructors, which can become even harder in the context of distance learning (Conti, 2021, this issue). The next sections account for the psycholinguistic rationale of both comprehensibility and the richness of input, and for the threats to language acquisition deriving from exposure to language material that does not meet such requirements, i.e., authentic and simplified input.

3. Comprehensibility and genuine input

One possibility for language instructors is to use authentic material as a source of input, a technique that has also been proposed in online classes (Celentin et al., 2020). While learners may be able to extract some benefits from authentic/genuine input (such as native speakers’ use of language and structures), there is a risk of it being non-comprehensible for non-native speakers (Oh, 2001; Chung, 1995; Yano, Long & Ross, 1994). In the context of distance learning, this risk is even higher, due to the lack of students’ autonomy and interaction with teachers and peers (Conti, 2021, this issue).

The main theories of second language acquisition have maintained for decades that non-comprehensible input can be highly detrimental to language acquisition. Even prior to Krashen, many empirical studies focused on the belief that communicative, comprehensible input is necessary for language acquisition (Hatch, 1983; Long, 1981; Wagner-Gough & Hatch, 1975). During the 70’s and 80’s, Krashen (1985, 1989) formulated a hypothesis in SLA, focusing on the importance of comprehensible input in terms of language acquisition. The Input Hypothesis states that a learner can improve only when the input received in a second language is just one step above the competence of the learner (the well-known “i+1”). Krashen’s definition of comprehensible input is a small piece of language that is either heard or read and is marginally more complex than the learners’ present grammatical knowledge. If the language input is solely composed of structures that learners already know, or of features beyond their present skill set, it is ineffective for language acquisition.

It has been shown that children and adults, in both hearing capable and hearing impaired in first and second language acquisition contexts, who are given only native speaker (NS) to NS models and not
comprehensible input will either fail to acquire or minimally acquire a small repertoire of lexical items, for instance greetings, advertising slogans and other formulaic discourse. (for review, see Long, 1981, 1983b). These observations bolster Krashen’s views. For instance, Dutch children do not learn German by consuming vast amounts of German TV (Snow, Van Eeden, & Muysken, 1981). Hearing-capable children born to deaf parents do not acquire spoken language through TV, either, yet once normal conversational events for children are encountered, they will quickly match the level of their peers of the same age range. (Piske & Young-Scholten, 2009; Sachs, Bard, & Johnson, 1981). In these and other cases the quantity of the input is unlimited and its quality is unadjusted. Therefore, incomprehensibility is the distinguishing characteristic.

Even if Krashen’s theories have been criticized for not being well supported by empirical studies (e.g., Gregg, 1984; Spolsky, 1985); the Input Hypothesis in particular has contributed to the field by giving prominence to input as well as learners’ exposure to it (Lichtman & VanPatten, 2021; White 1987). Piemann’s (1989) Teachability Hypothesis and Learnability Hypothesis, which have been researched for thirty years, offer a complementary perspective on the issue.

According to Piemann’s research, interlanguage sequences develop on the basis of a universal hierarchy of procedural abilities that all speakers acquire in the same order when learning an L2, independent of the target language. These sequences are implicational: the procedures which determine a lower level are necessary to be able to process the ones for the next level and reflect the natural stages that learners will go through when learning a second language. Accordingly, as stated by the theory of Processability (Ferrari & Nuzzo, 2010; Pallotti & Zedda, 2006; Piemann, 1999, 2007; Piemann, 2011), the understanding of second language features can only happen if learners are able to process them at the moment of presentation. In other words, students will be able to intake (Corder, 1967), and hence acquire, only those features they are ready to process at that specific stage of their learning path. In consequence, most L2 acquisition theories agree that teaching cannot alter the natural order of second language acquisition, but it can help speed up this process, while the premature teaching of inadequate language structure and features can lead to regression or fossilization. Thus, the practical implications of the Theory of Processability are “that some structures are best learned if the specific instruction coincides with the learners’ next stage of development” (Ollerhead & Oosthuizen, 2005, p. 62) and that “for instruction to be effective it needs to target features that lie within the developmental stage next to that which the learner has already reached” (R. Ellis, 2005, p. 11). This makes the appropriateness and comprehensibility of the input in second language teaching even more important.

Similarly, Gass (1997) made clear the relation between apperceived input, comprehended input and intake. Input is apperceived when a learner notices any input structure that requires decoding to be able to formulate a conceptual representation. Input that is partially incomprehensible will attract the learners’ attention to the specific structure. Thereupon, a cognitive correlation is made between internal language representation and external representation, which ultimately would result in acquisition, or intake (Gass, 1997; VanPatten, 1990; White, 1987). Thus, according to Gass’s framework, input can become intake only if the amount of non-comprehensible language is limited and controlled.

Another theory of language instruction based on the importance of input is Processing Instruction by VanPatten and collaborators (Lighthown, 2015; VanPatten, 2015; Wong, 2015; inter alia). In their view, input can become intake only if it is correctly processed, therefore guiding learners in the process: “during the act of comprehension, learners are engaged in mapping meaning onto form. The internal mechanisms are working on the data found in the input to create language in the head. The mechanisms cannot do this if nothing in the speech stream is comprehensible” (VanPatten, Smith, & Benati, 2019, p. 45). In this context, comprehensibility is a sine-qua-non condition for acquisition to take place (VanPatten, Keating, & Wulff, 2020). Accordingly, Lichtman and VanPatten (2021) have recently reformulated Krashen’s Input Hypothesis as follows: “The principal data for the acquisition of language is found in the communicatively embedded comprehensible input that learners receive. Comprehension precedes production in the acquisition process” (p. 14).

Studies on vocabulary and reading comprehensibility give an essential contribution to this area of research, showing that 95-98% of vocabulary in a text should be understood by learners for learning to take place (Hu & Nation, 2000).

Another key theory providing a perspective on the issue is the Interaction Hypothesis by Long (1996). In this framework, negotiation for meaning has a crucial role in facilitating acquisition by bridging input, internal learner capacities, particular selective attention, and output through interactional adjustments by the NS or more competent interlocutors. Clearly, negotiation of meaning can take place only if the number of unknown items in the input does not exceed a certain amount, i.e., if input is not totally non-comprehensible.
From a different angle, it should be pointed out that it is widely acknowledged that language acquisition takes place while the learner is involved in meaningful communication, i.e., s/he is employing the language in an actual content delivery (e.g., N. Ellis, 2005; Long, 2015; Paradis, 1994, 2004). This process cannot take place if the input is overwhelmingly non-comprehensible. Further, the same authors point out that implicit processing of genuine input is likely to be flawed and misleading, due to factors such as low salience of important aspects of the L2, L1 interference, and blocking (VanPatten, 2004). Therefore, pure implicit learning from authentic input is not the most efficient way of learning a language. Consequently, some form of manipulation of the linguistic material that learners are exposed to is desirable, remaining in the context of meaningful communication.

In summation, the literature agrees that when learners are facing input which is too difficult for their linguistic skills and socio-cultural competence, they may fail to recognize words, and there will be minimal to zero comprehension or understanding of meaning and little retention of any language feature. Thus, if the input level is too far from the learner’s comprehension skills, it is likely that it will not become intake, nor is it likely to be integrated into the learner’s language system and therefore it is of very limited use for language acquisition. In addition, it will be stressful and overwhelm the students’ cognitive abilities.

Finally, it should be noted that comprehension is not at all a linear activity, but a convoluted process entwined with different factors, among which, extra- and para-linguistic aspects have a relevant role. (Nuzzo & Grassi, 2016). In distance learning, these elements are weakened, which arguably makes comprehension more challenging for learners, thus requiring extra care on the teacher’s part.

However, understanding alone is not a guarantee that learning will occur. Rather, it only provides the foundation for learning to take place. For the process of acquisition to be likely, input also needs to be rich and relevant, as the next section illustrates.

4. Richness and simplified input

In a context where teachers are not adept at perceiving whether the input offered to their students is comprehensible enough, one of the natural, likely solutions practitioners may adopt is the employment of (over-)simplified materials. Although we acknowledge that different strategies exist to make input more comprehensible during classroom instruction (facilitation through, e.g., pre- and post-reading activities, conceptual maps, non-verbal cues, multi-modal exposure), in the present contribution we focus on the psycholinguistic effects on learning using simplified language material. Simplified input, in this context, refers to texts made of short sentences and utterances, containing high frequency vocabulary and a strictly controlled range of syntactic constructions and verb tenses. Other features include the avoidance of idioms and a low ratio of dependent to main clauses. The aim of simplifying texts is to boost comprehensibility, thus making processing possible even for learners with a limited knowledge of the target language. This kind of linguistic material is the most common in published textbooks (Amoruso, 2010).

In the 1980’s, citing sociolinguistic considerations, De Mauro (1980) advocated for the utilization of simplified input in institutional communication or informative texts for a disadvantaged target, for instance, non-native speakers or low-schooling subjects. He noted that it is common for institutional or bureaucratic texts to use obscure and complicated language. This makes comprehension for disadvantaged people difficult if not impossible, therefore limiting their access to services and knowledge. In his view, the failure in comprehension in these cases would constitute a violation of the citizens’ rights (De Mauro, 1980). Even though this sociolinguistic angle supports the employment of simplified input, when language learning is concerned, psycholinguistic and acquisitional considerations should have priority. When perceiving the proficiency level of a class is difficult, as in the case of distance teaching, employing simplified material may sound like a safe solution. However, it is crucial to point out that in the case of input simplification, comprehensibility is gained at a very high price: at the expense of language learning itself (Long, 2015). Indeed, on a psycholinguistic level, simplified input is of little use for acquisition, because what is removed from the material is often the very substance learners need to be exposed to in order to internalize the L2 (Arici, Cristofori, & Maniotti, 2006).

As mentioned above, the main aim of language instruction is the acquisition of implicit knowledge. The set of computational procedures that constitute implicit knowledge is created by tallying the likelihood of occurrence of constructions and the relative probabilities of their form-meaning connection, known as statistical learning (N. Ellis, 2005). Collecting examples of a structure allows learners to create generalizations, which then constitute the implicit representations employed when dealing with language in real time.
Therefore, for acquisition to take place the input must include the items that non-native speakers (NNSs) need to learn, and to include them to an extent that mirrors the reality of language use outside the classroom, because “[f]requency of use determines availability of representation” (N. Ellis, 2005, p. 306). Such a need is even more compelling in a distance-learning environment, since the opportunity to encounter the target language in the real world is diminished due to social distancing and restrictions on travel.

From the perspective of grammar acquisition, Ortega (2019) stated that

[i]f we only design instruction with sanitized language (simplified, sentence level [...]), we strip meaning (social, personal, linguistic, nonlinguistic) out of grammar; we strip language of the cues that conspire to aid learners to construct their grammar. (n.p.)

Such considerations are just as relevant when it comes to lexicon. Numerous empirical studies prove the role of frequency of exposure for learning both single-word vocabulary items (e.g., Horst, Cobb, & Meara, 1998; Rott 1999; Tekmen & Daloglu, 2006; Waring & Tataki, 2003; Webb 2007; Webb & Chang, 2015; for a review, see Uchihara, Webb & Yanagisawa, 2019 meta-analysis) and formulaic sequences (e.g., Boers & Lindstromberg, 2012; Webb Newton & Chang, 2013).

Speakers’ sensitivity to frequency has also been demonstrated for low-proficiency learners in a recent study by Northbrook and Conklin (2019). The experiment is especially relevant since it was run in a foreign language (FL)-learning context, testing the effects of the input that learners receive from teaching materials and textbooks. Thirty-five Japanese learners of English at the beginner level were included in the study. The target items were twenty lexical bundles of three words, included in the textbooks that the students used over a three-year period. The experimental subjects completed a timed phrasal judgment task and a familiarity rating task, which showed that they were sensitive to the frequency of lexical bundles. This means that the actual input learners are exposed to, even if only intended as supporting context in displaying certain language features, influences student’s fluency. Crucially, studies of the linguistic material in textbooks have shown that it is qualitatively different and follows very different distributional patterns from authentic native speaker language (Long, 2015; Northbrook & Conklin, 2018; Nguyen & Ishitobi, 2012).

There is thus a noticeable need for vocabulary and grammar structures to be statistically consistent in the input learners are exposed to. This is recognized and theorized in Italy at an institutional level. The “Manifesto per l’insegnamento della lingua italiana a studenti internazionali”3 (Rastelli & Bagna, 2020) is signed by 34 Italian universities, and promotes the employment of rich, relevant and authentic input, advocating a usage-based model of language acquisition, where the frequency of exposure constitutes a core factor (Spina, Forti & Grego Bolli, 2020).

In summation, there is compelling need for teaching materials which expose learners to an input capable of triggering statistical learning of the actual language spoken in the real world outside the classroom. It is unlikely that impoverished, simplified input comprises such material.

In addition to the psycholinguistic level, one more aspect of simplified input that needs to be taken into account is relevance. Simplified input tends to be stilted and dull, and its content to be impoverished and trivialized (Arici, Cristofori, & Maniotti, 2006). Moreover, commercially published materials aim at covering the widest possible audience, thus offering generic input which is of little use for the students’ specific communicative needs. The importance of learner-centeredness is widely acknowledged, and it should result in the design of relevant teaching materials which account for the actual context, domain and tasks which conspire to determine the linguistic needs of each learner (Long, 2015).

Simplified input is hardly consistent with these considerations, and it is unlikely it will properly prepare the learner for language use in the real world. First, it exposes learners to language that has crucial differences from that spoken outside the classroom, thus undermining the chances for statistical learning to take place. Second, because published materials are meant to be generic and valid for any purpose, barely meeting the actual linguistic needs of any specific learner, thus weakening their motivation.

As Yano, Long and Ross (1994) stated:

Linguistic simplification can be self-defeating to the extent that the purpose of a reading lesson is not the comprehension of a particular text, which learners are unlikely ever to encounter again outside the classroom, but the learning of the language in which the text is written, and/or the development of transferable, non-text-specific, reading skills. (p. 191)

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3 Manifesto for Italian L2 teaching to international students.
5. Elaborated and modified-elaborated input: rationale

The previous sections show that when teachers are not able to verify their students’ level of comprehension, they may employ either oversimplified or genuine, non-comprehensible input. As explained, both scenarios are likely to have a detrimental effect on language acquisition, albeit for differing reasons. It should be noted that both genuine/complex and simplified input have beneficial features. Namely, genuine input exposes the learners to the linguistic material they really need to learn, while simplified input is comprehensible and therefore processable.

Elaborated and modified-elaborated input constitutes a third option, which aims at keeping available for learners the useful features of both simplified and complex input, while overcoming their associated pitfalls. In other words, the goal is to improve comprehensibility without sacrificing the richness of genuine input.

The concept of elaborated input comes from early studies of foreigner talk discourse, i.e., of the strategies NSs adopt when communicating with low-proficiency NNSs (Long, 1980; 1983a, 1983b). These studies observed that L1 speakers rarely simplify their discourse, and rather modify the interaction structure of the conversation. This is achieved through devices such as repetition, confirmation checks, synonyms, antonyms, informal definitions, slower pace, making new topics salient (Long, 2019). These devices are also employed, to a much lesser extent, in conversation among NSs. This means that they imply a quantitative, not qualitative, difference in the input that L2 learners are exposed to.

Input elaboration employs the same devices. In both written and aural texts, this means that complex grammatical construction and low-frequency vocabulary are not avoided, rather they are made comprehensible by adding redundancy, repetition, paraphrasing, synonyms, more overt marking of grammatical and semantic relations, and full noun phrases in lieu of pronouns.

The aim is to make texts more comprehensible, and therefore processable, while at the same time preserving the elements and features of the language, which thus become available for incidental learning. Elaborated input therefore includes the benefits of both simplified input (comprehensibility) and genuine input (real language, unknown items available for learning). Crucially, this is achieved through devices naturally emerging in NS-NNS communication, and therefore with high ecological validity. Finally, it should be noted that in simplified versions of texts a considerable amount of information is lost, and while this makes the input comprehensible, it also results in lower quality and conveys less information. Elaborated texts, on the contrary, retain all the information borne by the genuine versions, together with the linguistic material necessary for triggering acquisition (Long & Ross, 1993). Elaborated input has a clear psycholinguistic advantage over authentic input in terms of acquisition, as they make language comprehensible and therefore processable and available for learning.

In the context of distance learning, the features of elaborated input can enable coping with the difficulties teachers claim to have when selecting linguistic materials for their lessons (Conti, 2021, this issue). When teaching through a screen, it is harder, if not impossible, to catch the non-linguistic signals of difficulties in comprehension that are a crucial clue for teachers, helping them to decide how to adjust the input to their students’ level. Examples of signals for comprehension issues may include, among others, confused looks, quiet clarification requests to peers, and excessive recourse to translating devices. When a class is held in person, teachers easily catch these cues and can promptly act accordingly through negotiation of meaning and recalibration of the input level. Conversely, in computer-mediated teaching, such signals are hard if not impossible to perceive, especially when the students’ cameras are off, which is often the case.4 Indeed, according to research carried out last year (Conti, 2021, this issue), students were rarely asked to keep their webcams on (50% of the students were never asked so, and only 5% and 13% respectively were asked always and often). Even with webcams on, it is harder to monitor the learners’ activities and comprehension during group work, which takes place in so-called breakout rooms, since teachers can join only one breakout room at a time, and it is impossible to have a good overview of the whole class’ work.

Similar observations are reported in an investigation about student interactions and class management during distance learning (Fragai et al., 2020). Language teachers reported difficulties in monitoring the students’ activities due to the loss of non-verbal communication, namely due to the impossibility of reading body language, gestures, and proxemics.

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4 It should be noted that while distance learning makes it harder to perceive signals which are available in presence, it also offers different resources, such as the chat, which can be beneficially employed if the teacher is correctly trained (Celentin et al., 2021; Giacosa, 2021, this issue). This, however, is beyond the scope of the present contribution.
In such a context it is difficult for teachers to assess their students’ level of comprehension in real time, and to take action and adjust the lessons accordingly. Therefore, instruction has a greater chance of being more effective if the input proposed is suitable for a wide range of comprehension levels, as is the case with elaborated input, which includes both genuine-input features and devices to enhance comprehensibility. This means that the same elaborated text can be appropriate for learners with different levels of proficiency (Oh, 2001). Specifically, while higher-proficiency speakers will benefit from the genuine aspects of the language, lower-proficiency learners in the class will rely on comprehensibility devices such as high-frequency synonyms and repetitions, included in the same text. This constitutes an important aid for teachers in dealing with distance-learning classes, since it enables them to propose aural and written texts to students whose level of comprehension is not clear, with a reasonable confidence of meeting the linguistic needs of a wide range of proficiency levels.

Another point to consider is that due to lockdowns and travel restrictions, students will have fewer opportunities to be based in the country where the target language is spoken, and this will lead to reduced exposure to the target language in the real world. Consequently, it is even more important for learners to be exposed to linguistic material which includes the features of genuine input and properly mirrors their frequency of occurrence in real language use. Elaborated input constitutes such linguistic material, with the additional, crucial benefit of making genuine input structures comprehensible for L2 speakers.

Since elaborated input includes both genuine vocabulary and redundancy (e.g., appositional phrases), it often results in longer texts than both simplified and genuine input. For the same reason, sentences are often long, and syntactic complexity tends to be high. Even though empirical studies have shown that this is not a relevant issue when it comes to comprehensibility and processing (see infra, § 6), teachers may want to avoid these undesirable side-effects of elaboration. The solution proposed here is modified-elaborated input.

Modifying elaborated input means to retain both nativelike language use and redundancy, while at the same time restoring normal sentence length and acceptable syntactic complexity. This is achieved mainly by splitting sentences into shorter ones and adding inter-sentential connectors in order to clarify the semantic relationships (Kobayashi Hillman, 2020). As further specified in the next section, empirical research about modified-elaborated input is still at an early stage, with only one experimental study available. Even though there is a lack of empirical data, the current paper endorses this kind of instructional technique, based upon its strong theoretical rationale and promising potential for language acquisition. Table 1 gives examples of genuine, simplified, elaborated and modified-elaborated input.

<table>
<thead>
<tr>
<th>Genuine</th>
<th>Simplified</th>
<th>Elaborated</th>
<th>Modified-elaborated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amazed by the beauty, the hiker paused to stare at the mountain before wandering farther down the trail.</td>
<td>The person walking in the mountains was impressed because the mountain was beautiful. He stopped and looked for a short time. Then he started walking down.</td>
<td>Amazed, impressed by the beauty, the hiker, the person walking in the mountains, paused to stare at and observe the mountain. Then he started wandering, walking without clear direction, farther down the trail, continuing on the path in the mountain.</td>
<td>Amazed and impressed by the beauty, the hiker walking in the mountains paused. He stared at and observed the mountain, then he started wandering without clear direction farther down the trail.</td>
</tr>
</tbody>
</table>

6. Elaborated and modified-elaborated input: empirical evidence

Empirical studies of the effectiveness of elaborated input have focused on two main issues: comprehensibility and incidental vocabulary learning.

Among the studies about comprehensibility, one of the first and most relevant is Yano, Long and Ross (1994). In their experiment, they compared genuine, simplified and elaborated input in a sample of 483 Japanese learners of English. They selected 13 genuine texts and for each of them they created a simplified and an elaborated version. Each participant was required to read the 13 passages in one of the three versions, and then to perform a comprehension test assessing replication, synthesis, and inference. Their analysis showed...
that subjects exposed to the simplified version scored statistically higher on the replication test. Scores of those who read the elaborated text were higher than those from the genuine-input group, yet not enough to be statistically significant. Synthesis items did not show any meaningful effect. However, when it came to the inference test, reading the elaborated version resulted in significantly higher scores than both simplified and genuine texts. This means that participants exposed to elaborated input were more capable of correctly linking the textual details in order to answer inference questions, which suggests a deeper processing of both language and information. Such an outcome may be related to the elaboration theory (Craik & Lockhart, 1972; Reder, 1982), which posits that redundancy of information can help the learner create stronger knowledge. Therefore, elaboration can result in benefits not only at a linguistic level, but also for content delivery, although it is quite complex according to conventional readability criteria. The same authors have argued elsewhere (Ross, Long, & Yano, 1991) that even though the processing burden may be higher in an elaborated text when compared to the unmodified version, due to sentence length and complexity, it is also true that the cognitive and psychological demand drops significantly. This is because redundancy and repetitions constitute a strong processing support for readers, who are allowed to find the same information repeatedly in the text.

Oh (2001) employed a similar design but added proficiency as a variable (high and low). She randomly assigned 180 Korean college students to six experimental groups, two for each kind of input (genuine, simplified, elaborated). Of each pair of groups, one was of low-proficiency students, and the other of high-proficiency students. After reading the passages, participants performed a comprehension test including three parts: synthesis, replication and inference. On the synthesis test, only high-proficiency learners showed a statistically significant difference between genuine and modified (simplified and elaborated) texts. However, scores from replication and inference comprehension tests showed a significant benefit in both modifications for both levels of proficiency. Such findings suggest that elaborated passages are as comprehensible as simplified input at both high and low levels of proficiency, with a significant benefit when compared to genuine input. This means that readers gain more information and therefore a deeper understanding when exposed to elaborated input rather than genuine input.

This outcome is especially relevant in the context of the present contribution. Oh’s (2001) study demonstrates that high- and low-proficiency learners can be exposed to the same elaborated input and that it can be beneficial for their comprehension, irrespective of their level. Such a finding corroborates the pedagogic proposal made here, i.e., the utilization of elaborated input in contexts, such as computer-mediated teaching, where it is hard for teachers to assess students’ level of comprehension.

Chung (1995) introduced a finer analysis of elaboration, by making a distinction between lexical and structural elaboration. Lexical elaboration is operationalized as adding redundancy to unknown vocabulary items by means of synonyms, prepositional phrases, antonyms, definitions. Structural elaboration, on the other hand, is defined as the redundancy added with the aim of making “existing logical relations explicit without adding new information” (Chung, 1995, p. 39), through devices such as retention of full NPs, repetition, and supplying omitted elements. The sample for the study comprised 484 learners of L2 English, who were exposed to nine passages in one of five versions: genuine, simplified, lexically elaborated, structurally elaborated or both lexically and structurally elaborated. The outcome of comprehension tests showed that both simplification and elaboration resulted in higher scores than exposure to unmodified texts, with no significant differences between the modified versions.

This finding aligns with other existing studies in confirming the effectiveness of input elaboration for fostering comprehension. Moreover, the lack of a statistically significant difference in comprehension scores between students exposed to simplified and elaborated input is especially relevant, as it proves that despite a higher degree of complexity, elaborated texts can replace simplified ones without undermining content delivery.

In order for input elaboration to be worth implementing, however, it also needs to prove beneficial for language learning, as compared to simplified and genuine input. This is the focus © second line of empirical research about elaborated input.

In addition to comprehension, Chung’s (1995) study investigated incidental vocabulary learning as well, through both immediate and delayed form- and meaning-recognition tests. Outcomes showed the same pattern found for comprehension, with subjects exposed to simplified and elaborated input outperforming the genuine-text group. No significant difference emerged between text simplification and elaboration. It should be pointed out that in the context of this study, each target item occurred only once in the text, which makes it hard to expect significant incidental vocabulary learning.
Kim (2006) operationalized the difference between implicit and explicit elaboration and compared these conditions to typographical enhancement and a genuine, baseline text. Outcomes from 297 English as a Foreign Language (EFL) learners showed explicit elaboration to be significantly more effective than both baseline and implicit-elaboration conditions. Such a finding contributes to proving the effectiveness of input elaboration, while providing practitioners with the information that implicit elaboration such as plain, appositive cues might not be as useful as more explicit signals such as connectors like “which means” before synonyms and definitions.

Further regarding appositive cues, Godfroid, Boers, & Housen (2013) carried out an eye-tracking study involving pseudowords. These target items occurred in the experimental passages either alone (e.g., panlines) or clarified by preceding or following appositive cues marked by the word “or” (e.g., panlines or boundaries/boundaries or panlines). These conditions were compared to known words as a control condition. Eye-tracking data from a sample of 28 students studying advanced English as a foreign language demonstrated that appositive cues were effective in drawing the participants’ attention to the target vocabulary items. The analysis of critical and post-critical areas of gaze duration suggested that the longer fixations recorded in the appositive-cue conditions signaled the process of sentence-integration, i.e., the creation and updating of representations of the unknown items through knowledge of already-known words. The study assessed vocabulary learning by means of a posttest, which did not show knowledge gains in any of the conditions. As in the case of Chung (1995), the fact that each target item only occurred once in the passages can explain such a finding. However, eye-tracking literature has clearly linked increased attention and learning (e.g., Conklin, Pellicer-Sanchez, & Carroll, 2018). Therefore, since they draw the learners’ attention to the target items, appositive cues can be safely considered as an effective learning aid in a teaching environment involving multiple occurrences of unknown words.

Urano (2000) randomly assigned 40 Japanese learners of English to one of three reading conditions: genuine text, simplified text and elaborated text. According to his outcomes in meaning- and form-recognition tests, elaborated input triggered incidental vocabulary learning, while simplification did not. In addition, reading times showed a comprehension benefit resulting from both elaborated and simplified texts, with no differences between them, thus confirming findings from the other studies (Chung, 1995; Oh, 2001; Yano, Long, & Ross, 1994).

O’Donnell (2009) approached the subject from a slightly different perspective, focusing on literary texts and the need for authentic features in the texts. Given her interest in the linguistic and rhetorical structure of readings, she did not include simplification in the experimental design, claiming that it would have been impossible to maintain the integrity of the text in such a condition. One-hundred and ninety-seven students were exposed to elaborated and unmodified versions of literary texts, and then performed both comprehension and vocabulary-gain tests. Results showed that elaborated versions resulted in significantly higher scores in both tests as compared to genuine text, thus confirming the benefit of input elaboration for both text comprehension and incidental vocabulary learning.

Fewer studies investigated effects of elaboration on auditory input, and they present mixed results. Loschky (1994) compared three types of auditory input: (a) baseline unmodified; (b) pre-modified, which included both simplification and elaboration; (c) interactive, which allowed learners to interact with interlocutors. Subjects exposed to the interactive condition outperformed both baseline and modified groups in vocabulary and grammar posttests. Such findings provide support for the interaction hypothesis (Long, 1981, 1983, 1996). At the same time, no clear advantage of elaborated over baseline and simplified input is observed. The fact that elaborated and simplified input were provided together in the same experimental condition needs to be taken into account, since it makes the study less relevant to the present work’s aims.

A more precise focus on elaboration is provided in Toya’s (1992) study, which adopts for auditory input the same distinction between implicit and explicit elaboration adopted by Kim (2006). Scores from a vocabulary posttest show an advantage of both elaboration conditions over the exposure to baseline, unmodified input. Further, explicit elaboration proved more effective than implicit elaboration. This can be related to two main factors: first, explicit elaboration involved a higher number of occurrences of the target items; second, subjects in the explicit-elaboration group were pre-informed of the following vocabulary test, which makes it controversial to state that they were exposed to incidental-learning conditions.

The effects of modification on auditory input have only recently been investigated further in a recent work by Kobayashi Hillman (2020). In addition to focusing on the auditory-input research gap, it is also the first and only study to empirically investigate the effects of modified-elaborated input. One-hundred and six L1-Chinese speakers of Japanese as an L2 were exposed to one of four versions of aural passages: genuine,
simplified, elaborated, and modified elaborated. The comprehension and vocabulary posttests showed an advantage for elaborated input over the three other conditions. Therefore, despite the strong rationale, modified-elaborated input did not prove to be more effective than simplified and genuine input for comprehension and incidental vocabulary learning from auditory input. Since this is the only existing study of modified elaborated input, more empirical evidence is needed for conclusions to be drawn.

To sum up, the empirical research provides solid evidence for the effectiveness of elaborated input, in both comprehension and learning level. Providing learners with elaborated input proved to be beneficial over the exposure to simplified and genuine input, especially in reading. Concerning the effectiveness of modified-elaborated input, empirical research is at too early a stage to draw conclusions. Still, its theoretical foundations and rationale are solid, which make future experimental studies of this technique an important part of the forthcoming research agenda in the field.

With the present contribution, the hypothesis is formulated that the features of elaborated input make its utilization desirable not only in traditional, in-person lessons, but also in computer-mediated teaching. This is due to the possibility for elaborated input to be appropriate for a wider range of proficiency levels, which is extremely useful in contexts such as distance learning, where it is hard for teachers to perceive their students’ comprehension skills. This hypothesis is supported by Oh’s (2001) study, which demonstrated that the same elaborated text was appropriate and beneficial for both high- and low-proficiency students. However, there is no empirical research to date involving elaborated input and distance learning. This research gap ought to be filled in the future, especially given that distance learning has shown itself to have relevance and potential beyond the emergency context.

In order to investigate this issue, a future experiment might compare the effectiveness for both comprehension and learning when learners are exposed to genuine, simplified, elaborated and modified-elaborated input in the context of computer-mediated teaching. The study would take into account that statistical learning is central to the rationale for employing elaborated input. Therefore, the experimental material would include a reasonable number of occurrences of the target items, which is necessary for statistical learning to be possible. Furthermore, learning would be assessed not only with offline tests measuring explicit learning, but also with online tests such as priming, self-paced reading or eye-tracking, which are capable of showing implicit knowledge gains. To verify whether elaborated input is useful for dealing with situations where the students’ level of comprehension is not clear, the study would include a sample of participants with a range of different levels of proficiency.

7. Conclusions

The Covid-19 pandemic forced a sudden shift from in-person to computer-mediated teaching. Teachers and students had to face new pedagogical challenges, which have been especially demanding when language learning was involved. Indeed, teachers’ interactions with students and students’ interactions among peers are some of the most negatively affected aspects of instruction in a distance learning environment, and they play a larger role in language classes than in many other disciplines. Among the possible issues raised in the context of online language teaching, the present contribution chose to focus on the difficulty for teachers to understand whether the input proposed to their students was appropriate for their level. The existence of this problem is reported and confirmed in questionnaires investigating instructors’ perceptions during emergency distance teaching in 2020 (Conti, 2021, this issue; Fragaï et al., 2020).

Indeed, computer-mediated lessons deprive teachers of the non-verbal clues that have a crucial role in their ability to assess their students’ level of comprehension. This leaves practitioners unsure about the kind of input fit for their classes, thus risking students being exposed to either oversimplified or non-comprehensible input. Both of these scenarios can be highly detrimental for language acquisition and should therefore be avoided.

The present contribution proposes elaborated and modified-elaborated input as a solution to this issue. Elaboration increases input comprehensibility without stripping it of its richness, thus making it optimal for acquisition and appropriate for a wider range of proficiency levels. This can be especially useful when it is hard for teachers to have a precise idea of their students’ level, as is the case in distance-learning contexts. However, it should be noted that elaborated input has both a strong theoretical rationale and empirically-proven effectiveness, which make it desirable for all L2s and for any learning setting and modality.
To date, the use of elaborated input in language classes is less widespread than its theoretical and empirical foundations would justify. Likewise, there are still areas of research to be investigated, such as its effectiveness in computer-mediated teaching, and the employment of modified-elaborated input.

It is our aspiration that the difficulties emerging during distance teaching and learning should constitute an occasion to deepen the knowledge and spread the adoption of a tool such as elaborated and modified-elaborated input, which has shown great potential in boosting language acquisition.

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