Input, Output, and Intake: Role and Relevance in Second Language Learning

Exposición, Producción e Internalización: Función y relevancia en el aprendizaje de una segunda lengua

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Abstract:

Within the language teaching-learning area, many factors can be identified as impacting the proficiency of the language students achieve. As teachers, we have gone from searching the latest technologies to creating innovative materials that motivate students, passing through the use of resources that integrate skills and curricular designs that help students develop their autonomy. It is in this environment that we consider it relevant to review basic concepts that help us understand how the information students receive needs to be converted into knowledge in order to produce the target language. In this essay the concepts of input, output, and intake are reviewed and the relevance of such concepts in Second Language Learning is pointed out.

Keywords:

Input, output, intake, second language learning.

Resumen:

Dentro del área de enseñanza-aprendizaje de lenguas se pueden identificar muchos factores que impactan el dominio de la lengua que logran los estudiantes. Como docentes, pasamos de la búsqueda de tecnologías novedosas a la creación de materiales innovadores que motiven a los alumnos, pasando por el uso de recursos que integren las habilidades y diseños curriculares que ayuden al estudiante a desarrollar su autonomía. Es en este ambiente que consideramos relevante hacer un recuento de conceptos básicos que nos ayudan a entender cómo la información que recibimos, necesita convertirse en conocimiento antes de lograr producir la lengua meta. En este ensayo se revisan los conceptos de Exposición, Producción e Internalización, y se señala su relevancia en el aprendizaje de una segunda lengua.

Palabras Clave:

Input, output, intake, aprendizaje de segunda lengua

Introduction

Advanced proficiency in a foreign or second language is today more than ever a critical factor in shaping the educational and economic life opportunities students and learners have (Long, 2014). Learning and using a language is an inherent process of being human, and research has proposed different theories on the way we learn languages. Among some of them, Skinner (1957) argued that language learning occurred through stimulus response, Chomsky (1957) proposed that all human beings have an innate language ability to learn, Lennenber (1967) claimed that there had to be some kind of trigger to activate the learning of the language, and Littlewood (1984) suggested that there is evidence that we start learning a language before producing it, having a silent period in which the learner does not produce anything at all, but "is already constructing a system which will enable him to speak when ready" (Littlewood, 1984:93).

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The learning of a second language has also undergone a similar path in research, some authors make the difference between learning a second language and acquiring it; or learning it consciously or in a naturalistic way without much awareness. Some of these differences are based on the way we receive the language being learned, the amount of exposure, or the purpose it is used for (Ellis, 2008; Krashen, 1985).

So many models of Second Language Learning (SLL) have been proposed because 'the achievement of various outcomes in SLL depends on meeting a number of conditions' (Spolsky, 1989:14). Regardless of the many points of view or proposed models, there are certain elements that have been considered as necessary – at different rates – in the learning of a language. Since there are so many involved in the learning of any language, this essay will focus on only three of these elements; input, output and intake.

Input, output and intake: Origin and history

The first part of the essay will only present the main definitions provided by some of the most representative researchers in the area, as well as the theory that supports each one of the concepts. Afterwards, a small selection of some of the more recent research projects that have one or more of these concepts as the core of the theoretical support will be discussed. Finally, a conclusion will be provided proposing the need for a non-unilateral view that accepts that all of them are determinant to achieve the language learning that we aim for.

Ritchie and Bhatia (2009:452) define input as "the source of information to the learner on frequencies of linguistic patterns or rules". Mitchell and Myles (2004:298) claim that "all languages directed towards the learner in the surrounding environment" are considered as input. Swain (1985:245) explains input to be "language directed to the learner that contains some new elements in it". While Schachter (1983) not only defined the concept but also proposed four different kinds of input; simplified, comprehensible, negative and sufficient.

The reason for input to be so relevant is stated by many researchers; Gass (1997) explains that since the learning of the language involves some imitation in the first stages, the language surrounding the learner plays a very significant role since it is the "source for imitation" (Gass, 1997:49). Hedge (2000) proposes that the reason for input to have been widely accepted is the fact that it explains the need to provide the learner with sample language to be learnt. Ellis (2005) claims that the use of the target language not only provides the necessary input for the learners to obtain the language, but also sends a very important message about the value of the language being used by the teacher and providing certain status.

Mitchell and Myles (2004) explain that in the extensive research that surrounds the input in the learning of languages, there are some characteristics that may help determine the rate of learning, characteristics such as "frequency, salience, redundancy, as well as lexical and semantic contexts in which the features occur" (Mitchell and Myles, 2004:99). Some researchers such as Schachter (1983) even propose the need for negative input in the language learning process, which can be found in the form of "explicit error correction, confirmation checks, clarification requests, or clear evidence of failure to understand" (Schachter, 1983:183).

Notwithstanding the many definitions, researchers, and models; the main contribution made regarding input comes from Krashen (1985) who proposed the Input Hypothesis. He claimed that "The Input Hypothesis is the central part of an overall theory of second language acquisition that consists of five hypotheses" (Krashen, 1985:1). The five hypotheses are (1) The Acquisition-Learning Hypothesis, where the distinction is made between the acquisition of the language done as a subconscious process, and learning, a more analytical conscious process; (2) The Natural Order Hypothesis declares that the language is always learnt in a certain order; (3) The Monitor Hypothesis states that there is an intrinsic process in our learning that corrects the errors produced; (4) The Affective Filter Hypothesis which explains that learners have an affective filter that may block the learning process unless it is lowered to allow the input to go through; and most importantly, the most relevant for this paper, (5) The Input Hypothesis which claims that we acquire the language in "only one way – by understanding messages, or by receiving comprehensible input" (Krashen, 1985:2).

The Input Hypothesis is based on a number of observable phenomena. Firstly, there is the fact that the way we address children is quite different from the way we address accomplished speakers, and a parallel process occurs when we address people in their second language. Secondly, whether learning the first or second language, all learners undergo a silent period in which input is being received but not produced yet. Thirdly, it has been possible to determine that the lack of comprehensible input has shown delays in the learning of the language. Fourthly, there is evidence (Krashen, 1985) that the more comprehensible the input, the higher the proficiency in the language is. Finally, learners who are immersed in the language or attend bilingual institutions are successful due to the availability of comprehensible input, which is that bit of language that is heard or read and that contains structures or words that are slightly above the actual proficiency level of the learner.

Many are the researchers who have quoted, supported, or challenged the Hypothesis proposed by Krashen, each

one using it as a whole or in parts to rationalize their own research work. For instance, Spolsky (1989) and Hedge (2000) use the notion proposed by Krashen that the input that needs to be provided should be slightly above the level of proficiency of the learner, this postulate is represented by the formula $i + 1$, and it has been used as the basis for many language courses design. Gass (1997) and Cook (1993) take the idea of having comprehensible input as the basis for the learning of a second language. Gass and Madden (1985) use the notion that going for meaning, not focusing on the form, but understanding the message is what is necessary for the learner to acquire the second language, since this is the way we learn our first language. White and Ranta (2002) use Krashen's theory to support their claim about having conditions for monitoring and correcting our own mistakes as the element that makes the learner become proficient in the language being learnt. Mitchell and Myles (2004) agree with Krashen when they state that input is necessary to learn a second language. Ritchie and Bhatia (2009) confirm The Input Hypothesis and state that we learn a second language exactly the same way as we learn the first one, by drawing from the input received, as the basis for their studies. Finally, Nagata (1998) takes into consideration the need to have comprehensible input, but based on the results obtained in his studies, he leans more toward considering the affective filter as a barrier for the learning of a second language as a valid point in the research of Second Language Acquisition (SLA).

One of the researchers who challenged the Input Hypothesis is Swain, who in 1985 made a study with immersion French students whose first language was English. The students received comprehensible input for seven years and still, by the end of that time, their competence was not the same as the one from a native speaker of French with the same time length of language exposure, which gave Swain the elements to propose the Output Hypothesis. Output is defined as "all the language produced by the learner" (Mitchell and Myles, 2004:69) and the hypothesis proposes that output is necessary for the learning process, not only as a means to provide input, but as the way to activate the knowledge obtained (Swain, 1985).

Gass (1997) claims that output has been taken only as a way to create input to obtain knowledge and not a way to practice knowledge that already exists, and Swain (1985) questioned this point of view in terms of need. She explained that having only input to learn, as comprehensible as it might be, was not enough to learn the language, since there is no need for grammatical analysis at the time of receiving the input; thus, the learner does not pay attention to the grammar as to understand the message being received. By having comprehensible output, the learner needs to include the grammatical

aspect and intends to discover the ways in which this one works. At the same time, producing the language provides the learner with the opportunity to become aware of the elements needed to keep moving forward in the production of the language, as well as the problems that may arise in the process and how to deal with them.

Swain (1995) claims output has different functions in the learning of second languages such as raising awareness about the language, helping the learner to test his or her own knowledge, and giving the learner the opportunity to reflect on the use of the language, much of which can be observed at the time of having a real-life conversation in which some negotiation has to be made to transmit the message intended. She also explains that comprehensible output refers to the learner being asked to produce not only a piece of language that is above the actual proficiency level, but also one that is precise, coherent, and appropriate to the context.

Besides input and output, there is still one more concept that researchers believe is part of the language learning process, and this is intake. According to Hedge (2000), even though when the input provided is the same to different learners, each one of them will pay special attention to different aspects of the language for a number of reasons. Therefore, intake "refers to the ways in which learners process input and assimilate language" (Hedge, 2000:12). Chaudron (1985) defines intake as the set of strategies and rules that the learners have, and he explains that "the fundamental characteristic of the conception of the term intake is that it identifies the learner as an active-agent" (Chaudron, 1985:2) in the learning of the language, making a difference in the reaction of the input received. The author proposes that the intake will also be subjected to "the current state of the learner's knowledge" as well as procedures, processes and other variables that are part of the "learner's cognitive apparatus" (Chaudron, 1985:2). However, he also claims that there is a gap in "theory and methodology" (Chaudron, 1985:11) in the research of intake in the language learning process and that more needs to be investigated about.

Each one of the proponents has made a valid point through research to support the concept he or she considers to be the key to learning a language. After the concepts have been proposed, many more researchers have performed studies that intend to ratify or contradict them. Gass and Madden (1985) observed teachers from five different Scottish secondary schools teaching third year. The intention was to observe the way teachers used the target language in their teaching practice and also how the students responded to having the teachers use the vast majority of the time the language they were studying. The researchers explained that although the classroom is normally viewed as "an artificial situation

compared with the way first language is acquired" (Gass and Madden, 1985:22), students spend a great deal of time in it and the situation of communicating during their classes is a real need for them. That is why Gass and Madden (1985) considered that the characteristics such as intonation and pronunciation can be learnt in the classroom when exposed to comprehensible input produced by the teachers. What they concluded after their observations was that not only comprehensible input was given to students and comprehensible output was demanded of them, but also that all the teachers accepted output which was not completely accurate and they were all more interested in "promoting an atmosphere which would facilitate pupils' communication skills" (Gass and Madden, 1985:29) which in turn, lowered their affective filter and made their learning more successful, somehow agreeing with both, Krashen's Input Hypothesis and Swain's Output Hypothesis.

Nagata (1998) conducted a study in which he used two different computer programmes, one input-focused and one output-focused, to help learners practice the acquisition of honorifics in Japanese. He compared the post-test results obtained by the learners in the two computer programmes in terms of effectiveness of production and comprehension. He observed that "given the same grammatical instruction output-focused practice is more effective than input-focused practice for the production of Japanese" honorifics (Nagata, 1998:167). The author attributes the success of the output-focused programmes to the grammatical element; since the output group needed to use "syntactic cues to succeed in the production task" (Nagata, 1998:168) the participants had to pay closer attention to the syntactic composition of the language, whereas the group that performed the input-focused task did not require these cues to have a general understanding of the task (Swain, 1985).

A study conducted with Canadian students who were learning English as a second language at school, selected a specific grammar feature to explore the "relationship between L2 learners' performance on a metalinguistic task and an oral production task" (White and Ranta, 2002:260). The authors used two different tasks and two different ways to measure. In the case of the oral production, they used a picture for a description task and students were evaluated on their ability to produce. The metalinguistic task was a written passage that contained a number of correct possessives and a number of incorrect ones as distractors. The students had to read the passage and identify which possessives were correct and which ones were not. The researchers found that the group with the metalinguistic task had superior performance, White and Ranta (2002) attributed this to the fact that "the experimental instruction promoted learning which learners were able to use because the

conditions for monitoring were met" (ibid, 281) and students had directed their attention towards a very specific point, making it more identifiable as proposed by Hedge (2000).

Last but not least, Hermas (2014) made a study that went even further than analysing only the second language learning process. He conducted a study with native speakers of Moroccan Arabic who were advanced learners of French as a second language and English as a third language, having started studying English at the age of eight and French at the age of thirteen. The author proposes that even though the learners were exposed to comprehensible input of the second and third language at different ages, the students can become fluent and proficient in the production of both languages, especially the third language, in this case English, which they started to learn at the age of 16, way past the critical period age (Johnson and Newport, 1989).

Conclusion

The studies presented above are only but a few of the studies made about input, output and intake. Literature has not reached an absolute consensus on definitions and classifications. However, despite the disparity of proposals, opinions and observations, some conclusions can be drawn from a careful analysis. First of all, not only from the reading of numerous articles and books, but also from personal observation in many years of teaching practice, it is undeniable that input is a necessary element in the learning of first and second languages (Hedge, 2000). However, if input is sufficient to the process of learning, then how do we account for all those people who after being exposed for a long time to comprehensible input can understand the language in quite a good extent, but cannot produce such language? How do we respond to the fact that we cannot explain why the acquisition of the language is not the same even when the input provided is? (Cook, 1993). Even Krashen (2021) in one of his last webinars explained immersion is not enough to learn the language. If input in itself was the answer, then the results obtained from every single study made would be predictable and the answer to the question of learning languages would have been answered. There is a general consensus on the role that input plays in the learning of languages; nonetheless, there is still some disagreement on "how much the learner infers directly from input and to what extent inferences are constrained by innate knowledge" (Ritchie and Bhatia, 2009:453). It is possible that those who claim that comprehensible input does work for certain aspects of the language have a valid point to make, and that because it is possible to comprehend input without syntactic analysis, people who are not capable of fluent and accurate production can have a fairly good understanding of what they hear (Swain, 1985).

But if so, then having comprehensible input would only help develop certain aspects of the language learning and the rest of the process would have to find different cognitive tools to comply with accuracy and fluency in production. Although the role of output in the learning of languages has not been studied as extensively as the concept of input (Nagata, 1998), there is strong evidence that the inclusion of this does promote the syntactic analysis and learning of the language, complementing the function of the input proposed by Krashen (1985). Swain (1985) has exposed the need to do more than just receive the language, she has demonstrated that in order to become proficient in the language, the knowledge has to be received and processed within the cognitive apparatus of each learner; thus, becoming intake when mixed with each learner's previous knowledge, experiences, learning styles, learning strategies, motivation, or even personal context.

It is true that neither of the models presented in this paper is the absolute answer to the dilemma of the learning of languages, and that when SLA models are intended to make the reality fit the model, they hinder more than aid the understanding of language learning (Cook, 1993). But it is also true that they are a good attempt to provide us with guidelines for a closer look at the process of learning a language, and that due to the fact that in the research of the area it is absolutely impossible to "control other variables, such as the affective or personality differences among learners" (Chaudron, 1985:11), it is likewise impossible to find only one way, method or technique in which all learners can be equally benefited. Therefore, the way to come closer to helping learners undergo the process with more success is to be aware of the many factors and elements involved in the learning of a language and be conscious that all learners will have certain characteristics that as a consequence, will make them react differently to the input received, this will also make them produce a variation of the output expected and naturally, each of them will transform that input into a very different intake in their own time and manner.

All in all, in spite of not being the absolute answer to the learning of a second language, being familiarized with the concepts of input, output and intake, as well as with their theoretical support may provide teachers and researchers with one more tool to make the process of learning a language a more successful one.

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