# A GRAMMATICALITY JUDGEMENT TEST FOR THE PAST HYPOTHETICAL/ COUNTERFACTUAL CONDITIONAL IN ENGLISH

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ABSTRACT: *Second language learning has been the focus of much debate over the last decades. On the one hand, parameter research has been crucial to answer the question of how exactly the learning device used by children is still available to L2 learning. On the other hand, according to Schmidt´s Noticing Hypothesis, output facilitates the noticing of problems in the IL and the relevant features in the input. In this paper we carry out a research on conditionals among Spanish students at the University of Las Palmas. Our purpose is to investigate whether there is evidence of L1 transfer in the students´ interlanguage production of the past hypothetical counterfactual and mixed-time-reference-counterfactual conditionals, and to know whether output supported by negative feedback can enhance acquisition of the target forms.*

KEYWORDS*: parameterization, aspectual parameter, parameter resetting, L2 learning, interlanguage, output tasks, noticing, conditional sentences, protasis, apodosis, L1 transfer.*

RESUMEN: *El aprendizaje de una segunda lengua ha sido un tema muy debatido durante las últimas décadas. Por un lado, la investigación de los parámetros ha sido crucial para responder a preguntas tales como si el dispositivo de aprendizaje utilizado por los niños está aún disponible en la adquisición de una segunda lengua. Por otro lado, de acuerdo con la Hipótesis sobre la Atención de Schmidt, los ejercicios de producción facilitan tanto la atención a las dificultades inherentes en la IL, como los rasgos relevantes de los medios de adquisición. En este artículo, se lleva a cabo una investigación sobre condicionales entre estudiantes de la Universidad de Las Palmas. Nuestro objetivo es investigar si existe evidencia de transferencia de L1 en la producción de interlengua tanto respecto a las condicionales hipotéticas pasadas contrafactivas como a aquellas basadas en combinaciones temporales, y asimismo averiguar si los ejercicios de producción sustentados por negative feedback favorecen la adquisición de las estructuras lingüísticas objeto de estudio.*

PALABRAS CLAVE*: parametrización, parámetro aspectual, ajuste de parámetros, aprendizaje de L2, interlengua, ejercicios de producción, atención, oraciones condicionales, prótasis, apódosis, transferencia de L1.*

## 1. INTRODUCTION

The theory of Universal Grammar (UG), particularly in its Principles and Parameters (PPT) version, has had a very significant influence on research investigating second language learning. However, whereas UG research on first language acquisition coincides in regarding UG principles as limiting properties of children's grammars in vital ways, related issues in L2 have given rise to much more controversy. While principles of UG can be applied to every human language, parameters are properties of the grammar that have different settings for different languages. Once acquired by the learner, a particular parameter setting has consequences for a number of superficially unrelated constructions (Chomsky, 1981). Parameter research has been the most fruitful ground for addressing the question of how L1 influences L2 acquisition, although it has also provoked a substantial number of conflicting suggestions and hypotheses.

As regards the access question, Meisel (2000) suggests that possible answers are not confined to a binary choice between all or nothing. No access is probably the least plausible assumption, but in his own words (2000: 130):

> No one is defending it, nor has anybody ever defending such a claim. Clashsen & Muysken (1986), to whom this position is frequently attributed, rather seem to be saying that L2 learners do make use of abstract grammatical categories and relations, although they also develop rules which do not conform to principles of UG. I doubt whether the *full access* hypothesis fares much better than *no access* in view of the many obvious and observable differences between first and second language acquisition. This is not to say that such differences must be attributed to the unavailability of UG in L2 acquisition, but they certainly ask for meaningful explanations which stand up to scrutiny. Non-specific reference to performance factors clearly does not qualify as such. *Partial access* thus seems to offer a more attractive solution to the UG paradox (Clahsen & Muysken, 1989).

The term is, however, used ambiguously. Under one understanding, it is claimed that UG shapes L2 knowledge via the linguistic competence acquired in the course of L1 development; this, however, might better be referred to as *indirect access*. *Partial access* then implies that some but not all principles of UG can be accessed directly, i.e. not via the L1 grammar, during L2 acquisition.

In this respect, Galasso (1999) proposes that *Indirect UG Access* gains the advantage in being able to account for the well known facts concerning L2 learning difficulties, fossilizing, and general lack of success regarding acquisition. In fact, an intriguing phenomenon in second language acquisition is selective fossilization in mature L2 grammars, that is, why L2 speakers succeed in acquiring many L2 aspects but fail to manage native-like competence in other areas of the grammar. Franceschina (2003) thinks that what is available seems to be compatible with the view that grammatical features can be classified into parameterized and universal and that the acquisition of the former is subject to a critical period.

Clearly a qualitative difference must apply to the adult learning L2. Galasso (1999) notes that although *Indirect UG Access* assumes UG to remain active in the adult via the L1 grammar, UG does not however interact directly with the L2 input, but merely indirectly via the previously set parameterization of L1.This model has the benefit in accounting for the many language transfer type errors, which is due to the fact that the learner will more often than not assume that the newly acquired language is similar to that of the native language. In his opinion, adults never loss their L1 parameterization for specific items, what they do is *consciously* manipulate what they know of the input and map it onto an L1 UG.

With regard to the role of *consciousness* in L2 acquisition, Schmidt (1990) reminds us that in psychology, the decline of behaviourism was associated with widespread recognition that consciousness is an important concept for the explanation of psychological phenomena, and consideration of the role of consciousness in cognition and learning has been respectable

for the last two decades. Current cognitive psychology does not share the position that subjective awareness is epiphenomenal, and it is often claimed that learning without awareness is impossible (Lewis & Anderson, 1985, among others).

White (1982) points out the common assumption that to know something is to be conscious of it. White warns that the contrast between conscious and unconscious knowledge is conceptually unclear, since the ambiguities of consciousness are combined with those of *knowledge-* equally difficult in psychological terms.

Chomsky (1986) discusses the distinction in terms of the following sentences:

1. John is too stubborn to talk to him.

2. John is too stubborn to talk to.


According to Schmidt (1990: 133), Chomsky´s explanation is as follows:

Native speakers of English know, consciously, that *John* is the subject of *talk* in 1, but not in 2, and that *him* in 1 may not refer to John. In Chomsky´s current theory, these facts about English are a reflection of much more fundamental principles of universal grammar, which are unconscious. Chomsky suggests that they are *cognized* rather than known, relating cognization to *implicit* as opposed to *explicit* knowledge, terms already in widespread use.

Schmidt (1990) remarks that conscious/ unconscious learning contrast may refer to awareness at the level of noticing. They may be distinguished on the basis of intention and effort. This is the question: if noticing is necessary, is such noticing automatic or must learners consciously pay attention? This is also the subject discussed in implicit knowledge: can rules be acquired without any conscious understanding of them? Conscious learning may be related to intentions at a more general level. In other words, learning according to a plan involving study and other deliberate learning strategies. On the contrary, unconscious

learning may be considered as an unintended by-product of communicative interaction. He also claims that the notion of conscious is useful because it ties together such related concepts as attention, short term memory, control vs. automatic processing, and serial vs. parallel processing. Conscious processing is vital for one step in the language learning process, and facilitates other aspects of learning. Schmidt (1990: 149) further adds:

> *Intake* is what learners consciously notice. This requirement of noticing is meant to apply equally to all aspects of language (lexicon, phonology, grammatical form, pragmatics) and can be incorporated into many different theories of second language learning. Theories of parameter setting in L2, for example, can easily incorporate the suggestion that whenever *triggers* are required to set parameters, these must be consciously noticed.

In line with this, Masats (in press) says:

Schmidt and van Lier associate language awareness or consciousness with the ability of mastering languages. Schmidt (1995) states that learning is only possible if there is intention – willingness to learn-; attention- to different features of the same linguistic input-, noticing – detection and perception – and understanding – recognition. Parallel to this, van Lier (1996) postulates that the learning process is characterised by a set of interwoven stages, namely Awareness –perception and attention-, Autonomy – development of cognitive processes such as processing and understanding – and Authenticity- mastery of the language.

Our L2 acquisition hypothesis is, on the one hand, to find out if there is any L1 transfer effect in the production of the past hypothetical/ counterfactual conditional, and on the other hand, if *output* enhances acquisition of the target form. Our research is based on Schmidt´s Noticing Hypothesis, which claims paramount importance for noticing in language learning. In the following sections we are going to focus on a review of conditional sentences- the past

hypothetical/ counterfactual conditional in particular- and on the research study and its results.

## 2. A REVIEW OF CONDITIONAL SENTENCES: THE PAST HYPOTHETICAL/ COUNTERFACTUAL CONDITIONAL

There has been a lack of agreement over the meanings and uses of conditionals. In the traditional school grammar approach, conditionals are put into the mood system together with indicative and imperative under subjunctive (Wu Man-Fat, 2005). On this matter, Alonso-Ovalle (2001) cites Stalnaker (1975) who proposed a uniform semantic analysis for both indicative and subjunctive conditionals. In his opinion, the difference between indicative and subjunctive conditionals is a pragmatic one: the use of subjunctive marks that the default strategy of taking the domain of quantification to remain within C is suspended. He assumes that the context change strategy associated with indicative conditionals is some sort of default.

In English language teaching grammar *conditionals* are put as *conditional tenses*, and in scholarly grammar they are put under modals.

Broadly speaking, we can say that conditional sentences are cognitively and linguistically complex constructions that possess many different meanings, are expressed through a variety of forms, and are used for a large number of discourse functions. According to Norris (2003), the complexity of expressing conditional sentences lies in the dependence of one circumstance on the occurrence of another. The variety of possible meanings includes areas of cognitive reasoning, logical argument, psychological intent and desirability, and

semantic nuances associated with real, counterfactual, or hypothetical events contingent on, inferred from, or caused by one or more of these events.

As Chou (2000) postulates, conditional structures reflect the human capacity to contemplate various situations and to infer consequences on the basis of known or imaginary conditions. Linguists doing descriptive studies have realised that every human language has a method of forming conditional sentences. However, Celce-Murcia and Larsen-Freedman (1999) reported that the reasons why L2 learners have difficulties in acquiring English conditionals are their syntactic and semantic complexities. Covitt (1976), who carried out a survey in the Los Angeles area, found that conditionals ranked fith among the most serious teaching problems encountered by ESL teachers. The main difficulties were: *form, meaning, oversimplified explanations, and time-tense relationship*.

In a conditional sentence, there are two parts, (1) the antecedent= the protasis, and (2) the consequent= the apodosis. In general, they are referred to, simply, as *P* and *Q*, from the logician´s tradition of representing material implication as *P* implies *Q*. Swan (1995) criticizes the traditional classification of real and unreal conditionals. Alternatively, he gives the following classification, which is the *ordinary tense* and *special tense*. The *special tense* can be used to refer to imaginary situations, including things that will probably not happen, situations that are untrue or imaginary, past events that did not happen, and similar ideas.

Sweetser (1990) classifies conditional semantics in accordance with the *content domain*, the *epistemic domain*, and the *speech act domain*. Content-based conditionals relate the content of the two clauses to each other. The P clause identifies a situation that causes or automatically results in the state of affairs indicated by the Q clause. Epistemic conditionals are known as expressions of the reasoning process. If the state of affairs represented by the P clause is true, then we are allowed to believe what the Q clause expresses. And speech act

conditionals are seen as pre-posing to a speech act a P clause that detects the situation which made the speaker provide the speech act.

Hill (1960) says that there may be as many as 324 distinct tense-modal sequences in English conditional sentences. Several studies analysing corpora of conditionals have been made, but according to Norris (2003), Hwang´s (1979) is frequently referred to. Hwang found that seven patterns accounted for about two-thirds of the conditional sentences in her spoken and written corpora. Norris (2003) also points out that Fulcher´s (1991) written corpus study of sentence forms using *if*, most of which were conditional, identified 20 different *if* forms in academic, narrative, and journalist writing. Fulcher suggested that teachers choose conditionals to teach depending on the most often forms in the kind of texts learners will most probably face. Students of English for Academic Purposes (EAC), for example, might observe that the traditional type 1 and 2 conditionals are not so frequent as other types. Ford and Thompson (1986) claim that conditionals with initial *if* clauses, which account for nearly 80% of conditional sentences in their corpora, perform four functions in both oral and written discourse:

- To propose options for future scenarios.

- To introduce contrasts.

- To provide examples following generalizations.

- To make inferences based on previously mentioned assumptions.

Besides these functions, Celce-Murcia and Larsen-Freeman (1999) add giving directives, speaking humorously and sarcastically, and offering apologies, commands, advice, and instructions as social functions in which conditionals with sentence-initial *if* clauses are used.

Another area of semantic and psychological processes reflected in conditional sentences is desirability. Mayes (1994, cited in Norris, 2003) investigated this area in an

interview with Noriko Akatsuka, a UCLA professor with over 15 years of experience in teaching Japanese and linguistics. As he expresses:

> Akatsuka believes conditionals help us explore the relationship between language and the human mind because conditionals reflect complex thought processes and the notion of desirability. Akatsuka thinks that instead of considering conditional sentences as only a matter of true value, we should consider them as examples of how language form reflects psychological thought. Mayes (1994) states that conditionals have traditionally been researched with respect to philosophy and mathematical logic rather than linguistics, as seen in the equation "if $p$, then $q$" depending on the truth of the constituent premises. Akatsuka questions why we try to represent the meaning of natural language conditionals using mathematical logic. The psychological state of the speaker (eg., sorrow, regret, disbelief, cynicism) is an important element in natural speech (Mayes, 1994, cited in Norris, 2003:46).

According to him, the notion of desirable/ undesirable allows us to begin to understand the psychological state of the speaker, the context, and the semantic meaning of conditionals.

In Barbara Dancygier's analysis of English conditional sentences (1999), there are in fact four different types of conditional sentences, many of which are sub-divided into further groups. The first, second and third patterns would fall into one of those types, the one which she terms *predictive conditionals* i.e. one part of the sentence causes the other. To quote Haegeman (1992), in such examples the *if-then* relation between the main clause and subordinate *if* clause is one of causation: the occurrence of the event or state in the antecedent determines that of the consequent.

We can say, then, that conditional sentences are closely related to sentences of cause and effect or reason-result. The condition is usually a cause or reason, and the statement in the other clause is an effect or result, which is dependent on that cause or reason. In present

and past hypothetical conditions the reason or cause is either impossible or not true. Here [+might], [+could] or [+should] can be used instead of [+would]. [+Might] adds the feeling of possibility to the statement, [+could] adds ability, and [+should] adds expectation. Both are not based on facts. The former expresses a situation which is contrary to reality in the present and future. They express a hypothetical condition and its probable result. The latter expresses a situation which is contrary to reality in the past.

To express the past hypothetical conditional in English, the writer must encode two functions: hypotheticality and past time reference. We agree with Izumi (2000) when he says that by using the analytical framework of the past hypothetical conditional in English, whereas hypotheticality is encoded in the features [+past] in P –*prostasis*- and [+past] and [+modal] in Q –*apodosis*-  (e.g. *had* and *would* in the sentence *If I had known, I would have bought a laser printer*), past time reference is encoded in [+perfect] and [+past participle] (e.g., *had known* and *have bought* in the same sentence).

Alonso-Ovalle (2001) assumes that indicative conditionals are appropriate in a context only if both the antecedent and its negation are compatible with the context set. A frequent use of subjunctive conditionals (their counterfactual use) requires that the proposition expressed by the antecedent be inconsistent with the context set. Celce-Murcia and Larsen-Freeman (1999) suggest that the acquisition of the English tense-aspect-system, the modal auxiliaries, and negation is an essential requirement for ESL/EFL students to acquire the full range of English conditionals.

Our purpose is to investigate how the syntactic difficulty of English conditionals affects our students´ interlanguage production of these structures, particularly past hypothetical/ counterfactual and, to a lesser extent, mixed-time-reference counterfactual conditionals.

Selinker introduced the term interlanguage (IL) in 1972, and it refers to a linguistic system made by learners out of the target language input they have experienced. In Chou´s

(2000: 64) words: "IL is the product of interaction between the learner´s first language (L1) and the target language (TL) input".

> Systematic variation of ILs means that the non-target variations found in the interlanguage production can be predicted and explained by the effect of situation, linguistic context, degree of planning, or some other identifiable cause. Interlanguage production with systematic variation can be improved trough instruction. It is important to recognize the error types, acquisition orders, and developmental sequences of learners in order to gain a better understanding of learners´ internal syllabuses in instructed second language acquisition (Larsen- Freeman & Long, 1991, cited in Chou, 2000: 65).

Schachter (1983) defines the term *language transfer* as "a constraint on the nature of the hypothesis language learners are inclined to make about the L2. As Larsen- Freeman & Long (1991) remark, language transfer can give rise, among other things, to positive transfer, over-production, interference, borrowing, or L2-related aspects of language loss.

Zobl (1982, cited in Chou, 2000: 65) claimed that:

> Language transfer does not alter the normal developmental sequences. Also, simpler forms usually modify more complex forms. Zobl suggested that one of three phenomena would happen in IL development. First, a delay may occur in the restructuring of forms that is necessary for learners to proceed to the next developmental stage. Second, learners may extend the scope of their present developmental structure, so there is a situation of over-production of certain forms. Third, learners may look for development that involves the smallest possible rule change.

Norris (2003) puts forward two experiments conducted by Berent (1985) comparing the production and comprehension of real, unreal, and past unreal conditional sentences for 55 advanced and low-advanced adult ESL learners. The results of the experiment indicated that

although past unreal conditionals were the most complex to produce, they were the easiest for the learners to comprehend. On the other hand, real conditionals were the easiest to produce, but the most difficult to comprehend. Berent claims that form and function can be acquired at different times in the course of second language acquisition. However, Chou (2000) finds fault with Berent´s assessment for production of the conditionals in the study.

> The production test was a discrete-point fill-in-the-blank test, in which participants filled in the verb form in the IF-C or the MC of a conditional according to the clue given by the verb in the other clause. Participants may have noticed the verb form revealed in the main clause of one unreal past conditional and then been reminded of the proper verb form in the target main clause of the following unreal past conditional" (Chou, 2000: 65).

According to O´Grady (1997: 349), the *Cumulative Complexity Principle* is as follows: "X is cumulatively more complex than Y if X involves everything that Y does plus something else". Therefore, the number of linguistic forms encoded in the morphemes can operationalize the construct of relative difficulty. O´Grady (1997) explains how the syntactic difficulties of L1 or L2 structures can affect learners´developmental stages or acquisition order. The MC of past counterfactual has three features, the highest number among all types of conditional sentences, so following this principle, we agree with Izumi (2000: 267) when he says:

> There are two possible reasons for the learners´ preference for encoding the [+modal] and [+past] before the [+perfect] and [+past participle] features. One obviously is the formal complexity in marking the perfect in English. The English perfective uses the aspectual auxiliary *have* for the present perfect and *had* for the past perfect, both followed by the past participle form of the verb. The past, in contrast, involves only a change in the form of the verb or the modal. Furthermore, double marking of the past,

one marking indicating hypotheticality and the other indicating past time reference, adds to the formal complexity of the past hypothetical conditional.

Taken this into account, we predict that this type is the most difficult and the last to be acquired. As Izumi (2000) remarks, a comparison of past and present hypothetical conditional sentences should make clear that [+past] in the past hypothetical conditional encodes not the semantic meaning of the past but rather hypotheticality. In the sentence *if I had money, I would buy a new computer*, the word *had* encodes the feature [+past], *would* encodes [+modal] and [+past], but [+past] does not have a semantic function of past time reference in either clause, since the sentence is related to the present time. Instead, it encodes hypotheticality. In the past hypothetical conditional, an additional past time marking (i.e., perfect tense) is essential to express its past time reference, as in *If I had had money, I would have bought a new computer.*

We think that the problems our students have in acquiring English conditionals are caused by their syntactic difficulty. In general, Spanish ESL learners do conditional reasoning adequately, since Spanish conditionals are not very different from English conditionals, especially the first two types and subtypes, which pose no real problems. However, aspectual forms regarding the past hypothetical/ counterfactual conditionals between English and Spanish differ in several ways.

Spanish *si* clauses, also known as conditional sentences, are used to express what could happen if some condition is met. As regards the past counterfactual conditional, this construction is used when referring to something that would have happened if some condition had been met. Like in English conditionals, since the condition was not met, the result clause is impossible.

The impossible *si-clause* is expressed as follows: the condition clause requires the pluperfect subjunctive, which contains two features, while the result clause takes the

conditional perfect, which also contains two features. With respect to the latter, problems arising from an incorrect use, in some parts of Spain, of the subjunctive pluperfect *hubiera* instead of the perfect conditional *habría*, makes the acquisition of this type of conditional more difficult.

(1)

*Si hubiéramos tenido dinero, nos hubiéramos comprado el último modelo de IBM.*

Instead of:

*Si hubiéramos tenido dinero, nos habríamos comprado el último modelo de IBM.*

However, although in the past hypothetical counterfactual conditional in English the IF-C has the same number of features as in the Spanish IF-C, the English MC contains three features, one of them being the modal. This involves Spanish learners resetting a [-modal] feature to a [+modal] feature. In this respect, Alonso-Ovalle (2001) cites Iatridou´s (2000) survey on the morphological setup of verbs in subjunctive conditionals. Cross-linguistically, past tense morphology appears in subjunctive conditionals. As for the consequent, in English, the modal *would* arguably decomposes into a modal component and a past component. Iatridou argues that the conditional mood is sensibly analysed syncronically as the combination of a future modal plus past morphology. We hypothesize that the modal parameter in this type of conditionals is difficult for Spanish students to reset, especially for those at the intermediate level. They know that [+modal] in the first two types of conditional sentences always goes in Q (MC), but for some reason, they tend to make mistakes in the past hypothetical/ counterfactual conditional and doubt about its position. Concerning mixed-

time-reference counterfactual (MTRC), a main disadvantage would be the possible confusion for students in trying to interpret different semantic nuances, i.e., [+ past] [+ participle] in the IF-C with the combination of [+modal] [+perfect] [+participle] or [+modal] in the MC, or viceversa. These constructions are used:

(a) for imaginary present actions or situations that are not possible because the necessary conditions were not met in the past, eg*:*

*If you had taken the course, you would know about it.*

(b) where the protasis is still true, eg.

*If I could speak English, I wouldn´t have needed to get the letter translated.*

These patterns often cause initial confusion due to both the aspect of unreality and the backshifting of tenses.

According to Wu Man-Fat (2005: 7):

It is not surprising for L2 learners to experience difficulties in learning this grammatical item. It is because, in contrast to the common belief that there are fixed forms and meanings (as in the traditional classification), there are a lot of classification in existing grammar. Besides, there are a lot of ways to express conditionals. For example, the use of *if* does not necessarily mean a sentence contains a condition, while conditions can be found in a lot of other sentences which do not have any of the words which are commonly used to indicate conjunctions. The latter is what Sinclair (1990) calls *conjunctionless hypothetical conditionals*. There are many contexts where conditionals can be found, either explicitly or implicitly.

In this study, we will concentrate on the complexity of three grammatical forms of the VP in the past hypothetical/ counterfactual English conditional: [+past], [+modal], and [+perfect].

## 3. RESEARCH QUESTIONS AND SPECIFIC HYPOTHESES

The study addresses the following research questions:

1. Is there any L1 transfer effect in the production of past hypothetical/ counterfactual, and mixed-time-reference-counterfactual conditionals among Spanish learners of English?

2. Does output, supported by negative feedback, enhance acquisition of the target form?

On the one hand, we hypothesize that evidence for an L1 transfer effect can be found in production at the intermediate level (first year students), and probably according to the situations researched by Zobl (1982). For example, we predict that Spanish ESL learners would tend to use simple past instead of the past perfect tense in the IF-C, and the simple instead of the perfect conditional in the M-C of past counterfactual and of mixed time-reference counterfactual conditions. The reason in doing this is that students make the smallest rule change in the acquisition process. We also predict that Spanish intermediate-level students will find it difficult to reset the modal perfective feature of the past hypothetical/ counterfactual conditional in English.

On the other hand, we hypothesize that more advanced learners, at some point, have access to the L2 value of the aspectual parameter and that they show development towards the L2 value in their interlanguage stages. Consequently, we expect to find no transfer errors in the second year students. As Escobar (2001: 19) points out "as to errors, we already observed that those found with the intermediate stage should not be very telling, since

following Birdsong´s (2000) claim, we should exclusively consider advanced learners´ interlanguage".

As regards the second research question, recent studies in cognitive psychology and second language acquisition suggest that attention to formal features in the input plays an important role in SLA.

Schmidt (1990) and Schmidt & Frota (1986) have proposed the *Noticing Hypothesis*, which claims that noticing is the necessary and sufficient condition for the conversion of input to intake for learning. Noticing requires focal attention and awareness on the part of the learner. "The Noticing Hypothesis further claims that what must be attended to and noticed is not just the input in a global sense but whatever features of the input are relevant for the target system" (Schmidt, 1993: 209).

The role of output in SLA has given rise to controversy since the *Output Hypothesis* was first proposed by Swain in 1985. As Izumi (2000: 241) maintains:

> The Output Hypothesis claims that, under some circumstances, output simulates language acquisition by forcing the learners to process language syntactically. According to this hypothesis, whereas the learner can often comprehend a message without much syntactic analysis of the input, production forces the learner to pay attention to the forms with which intended messages are expressed.

Schmidt (1990) also argues that consciously noticing the form is critical for its subsequent processing. "In this process, output is hypothesized to promote language acquisition by making learners recognize problems in their IL and prompting learners to do something about those problems" (Izumi, 2000: 241).

The comprehensible output hypothesis claims that language is acquired by attempting to use new structures and vocabulary in production: we acquire when we achieve communicative success. Pica *et al.* (1989*)* suggest that in modifying their output, learners

may also be engaged in acquisition as the internalization of new forms, test hypotheses about the second language, experiment with new structures and forms, and expand and exploit their interlanguage resources in creative ways.

In line with this, Izumi (2000: 244). further adds:

This function of output relates directly to Schmidt´s Noticing Hypothesis, which, as was said above, claims paramount importance for noticing in language learning. Output facilitates the noticing of problems in the IL and the relevant features in the input. This noticing may, in turn, stimulate the processes of language acquisition. In addition, if output indeed triggers attention to form, this attention is most likely to involve simultaneous attention to meaning, provided that the learner initiates production with the intention of conveying content.

## 4. THE EXPERIMENTAL STUDY

One of the basic questions in SLA has been whether parameters can be reset in non-primary language acquisition similarly to primary acquisition, that is, whether second language learners can acquire any language properly that is not instantiated in their L1. There are only two solutions to this problem: either to assume L1 transfer or to deny any L1 influence. For Slabakova (1999: 291):

Once a learner´s parameter is set at a certain value, parameter theory predicts sweeping consequences across the board. A host of superficially unrelated constructions that are theoretically dependent on the parameter value should be available in the interlanguage grammar. Can adult learners attain the L2 value of some parameter, and if so, do they also acquire the related constructions? If it can be demonstrated that the parameter value

correlates with knowledge of the cluster in learners at different proficiency levels, this will be compatible with the claim that the parameter value and the related cluster appear together, or that appearance of one is a predictor for the appearance of the other. Alternatively, if parameter resetting does not include acquisition of the related cluster, it could be legitimately be argued that parameter resetting is impossible in L2 acquisition.

The purpose of this experimental study is to find out whether L2 learners at some point have access to the L2 value of the aspectual parameter (specifically, the past hypothetical/ counterfactual conditional). Following Escobar (2001: 20), "if UG is accessible, we expect to find correct judgements, particularly in the interlanguage of most advanced learners, already reaching the end stage".

## 5. METHOD

### 5.1.Participants

The participants in this study were two groups of 10 adult learners studying the first and second year of their Computer Science degree at the University of Las Palmas. At the time of the experiment, they were all enrolled in the subjects: Technical English I (obligatory) and Technical English II (optional). Group 1 students belonged to the first year, and had an intermediate level. Group 2 students belonged to the second year and their level ranged from upper-intermediate to advanced. As has just been said, this subject is optional, which means that most of the students who choose the subject have a good command of English

In general, they were all motivated students, since they were aware that a better knowledge of English would open up a wider range of job opportunities for them. The

participants had the same native language, Spanish, and their age ranged from 18 to 22. They had all studied English as a second language for at least nine years, starting in primary school.

*5.2. Procedures*

The research was conducted over two days. The target form was the past hypothetical/ counterfactual conditional in English (e.g*., If American calculator makers had paid more attention to their Asian competiors, they would not have lost the battle as quickly as they did*) and mixed-time-reference counterfactual (MTRC) (e.g., *If American calculator makers had paid more attention to their Asian competitors, they would still have the control of the market*).

Conditional sentences in general, and the past hypothetical/ counterfactual conditional in particular, are known to be difficult for many ESL learners because of the structure´s syntactic and semantic complexities (Celce-Murcia & Larsen-Freeman, 1983). The structure was not new to them, but most students, particularly those belonging to the first year, did not use it accurately during the previous revision tasks done in class. The experimental sequence of the study took approximately two hours and a half, spread over two days. With respect to the tests used, we follow Escobar (2001: 19) when she says "as to the way in which we may obtain the relevant interlanguage, we should have our subjects take a placement test together with the experimental test".

In our case, we used an *output task* as a placement test. This was a free exercise where the students had to show their knowledge, not only about the past hypothetical/ counterfactual conditional, but also about other morphosyntactic and lexical features and text coherence.

However, only the target form, *the past hypothetical/ counterfactual and mixed- time-reference counterfactual conditionals*, will be analysed in the results.

The tasks selected, as shown in Appendix 1, were:

a. *a fill-in-the-blank/ rephrasing task*: students in both groups were asked to fill in the blanks writing the *if* clause and the main clause, from a situation given (five sentences). No clauses were provided as cues and all the sentences were past hypothetical/ counterfactual conditionals. The rephrasing task (five sentences) consisted in finishing or writing a whole sentence with *if* in such a way that it meant exactly the same as the sentence printed before it. The task took 30 minutes.

b. *a text reconstruction (output task)*: participants in both groups were given a written passage from a text which had been previously read in class. Approximately 70% of the sentences in the passage contained the past hypothetical conditional form. Then, they were asked to read the passage and underline the parts that they felt were particularly necessary for the subsequent reconstruction. After that, the input passage was collected. Finally, they were asked to reconstruct the passage as accurately as possible. Here, note-taking was permitted. The task took approximately one hour.

Most sentences were past hypothetical/ counterfactual conditionals, but some mixed-time-reference counterfactual conditionals appeared in the text. Although we hypothesized that this mixed type would involve confusion, particularly among the first year students, we believed that it could be an ideal way to analyze interlanguage. As was said above, the purpose of this task was to detect interlanguage development, and to confirm, at least partly, the Output Hypothesis. In order to confirm this hypothesis, we did not give the students the two tests at the same time. The two tasks were performed leaving one class in between for correction.

When the first task papers were corrected, they were given back to the students, and we dedicated a class to practising negative feedback, particularly recast and error correction, before doing the second task. The participants commented on their errors and problems with the teacher and with one another. Correction is a form of inductive grammar teaching. We think it encourages learners to adjust the conscious rule they are using or to try to discover the rule if it is unknown. It also promotes confidence, since learners will feel that they receive guidance and support. Our purpose was for them to notice the mistakes by means of recasts. Recent studies have demonstrated that recast can enhance SLA. Doughty (1998) in a study of beginner-level university students of French, found that among the most used feedback types, recast was most likely to give rise to learner repetition. Ellis, Basturkmen, & Loewen (2001) also found that the objective of most focus on form episodes was grammar and the most predominant feedback move (75%) was the recast.

*5.3 Results*

We will first analyze the results of the fill-in-the-blank/ rephrasing test in group 1 and group 2. Here, two language aspects will be analyzed: the two clauses involved in the past hypothetical/ counterfactual conditional in English: the IF-C *(protasis)* and the MC *(apodosis).*

After that, we will examine the data produced by the output test in both groups: a text reconstruction in which 70% of the verbal forms belonged to the past hypothetical/ counterfactual and mixed-time-reference counterfactual conditionals. Then, we will look at the uptake rates in each group. A final comparative study of each group regarding both tests will also be carried out.

The percentages of success and errors in both tests and items used in each clause, related to each student and group, will be shown in tables 1-4 (Appendix 2). Figures 1- 3 (Appendix 3) will globally indicate the rates of success and clauses used by each group with respect to both tests.

In the first test, an analysis of learners´ production in group 1 using this conceptualization of the form, revealed that, as can be seen in table 1, there was no clear evidence of L2 development, although we must add that there was a level difference among the students. All of them made more mistakes in the MC rather than in the IF-C. Most students encoded the features [+past] in the if-clause and [+modal] and [+past] in the main clause, however they often failed to encode the features [+perfect] and [+past participle] in both the *if* and the *main clauses*, typically producing such sentences as*: If I had money, I would buy a computer*. So, we can say that many of the participants found it difficult to encode the features [+perfect] and [+past participle] in both clauses, although there was a greater individual variation. Our results are similar to Izumi´s (2000), since we also found that the major difficulty participants had with the target form involved marking past time reference rather than marking hypotheticality. This fact confirms "the cumulative principle" mentioned above.

However, a few participants of group 1 did not encode the feature [+modal] in the MC, and placed it in the *if-clause.* Surprisingly, this kind of mistake did not occur when we revised the present counterfactual conditional, which makes us conclude that the main cause was L1 transfer. As was said above, Spanish past hypothetical/ counterfactual conditional is formed by *a pluperfect + a perfect conditional*, or *two pluperfects* in some parts of Spain. The use of *habría and hubiera*, or two *hubiera* in Spanish, clearly influenced some participants of group 1 at the time of encoding the [+modal] feature in the right clause. To a lesser extent and regarding the MC, some mistakes made by group 1 were the confusion

between [+have] and [+had]: [+had], instead of [+have] after [+modal], e.g. *I would had called*, instead of *I would have called,* which, in our opinion, was another evident L1 transfer effect; or absence of the past participle, e.g. *I would have call*, instead of *I would have called*.

As regards the second test, as can be seen in table 2, group 1 showed improvement compared to the first test. Most of the participants encoded the feature [+past perfect] in the IF-C. The rate of errors concerning the MC was also slightly reduced. Although the error rate was dependent on the number of items used- the number of clauses used by group 1 was much smaller than the number of clauses used by group 2, as is indicated in figure 3- we found uptake in both clauses. The IF-C success rate ranged from 70% to 83,17%, and the MC success rate ranged from 50% to 64,98%. They obviously showed a slight advance in accurate use of the target form. However, they found problems with the encoding of the different kinds of modals. They tended to use [+*would*] but very seldom did they use other modals. They also found problems with the mixed-time-reference counterfactual conditionals. Only a few used them in their text reconstruction.

We think that the uptake of group 1 regarding the second test may have been due to both, the time dedicated to negative feedback before doing the second test, and the kind of task done: *output*. In this case, we may say that output enhances L2 acquisition.

It is worth taking into account that although lexical and other linguistic features were not analyzed in the second test during the experiment, group 1 participants did not do badly in relation to text coherence.

With respect to group 2, although the rate of success in the first test was high, there was improvement in the second test, where only three participants made a slight error regarding the MC. This can be clearly seen in tables 3 and 4. The mistakes made were related to their confusion with the backshifting of tenses regarding mixed counterfactual conditionals. The IF-C success rates with respect to both tests improved from 99% to 100%, and the MC

success rates improved from 93% to 94,74%. Consequently, we think there was evidence of L2 development and no L1 transfer in group 2.The Output Hypothesis may be confirmed here as well.

In figures 1 and 2 we can clearly see a comparative analysis between group 1 and group 2 in relation to both tests. Here, the success rates of each group and clause are provided. By means of a non-parametric test for comparing two independent groups- *the Mann-Whitney U test*- we demonstrated that a statistically significant improvement was observed in group 2 compared to group 1. However, as can be seen in figure 2, regarding the second test, particularly the *if* clause, there was only a *trend* for a better success percentage in group 2 versus group 1. This may be the result of the relatively small number of students tested in the present study. As was indicated above, figure 3 shows the percentages of clauses used by each group in the second test.

Based on these results we can say that:

(a) There was evidence of L1 transfer in group1. The participants of this group had an intermediate level, and as has been mentioned, they made transfer errors, particularly in the first test. However, with respect to participants of group 2, whose level ranged from upper intermediate to advanced, they made no transfer errors, so there was evidence of L2 development. On this issue, we agree with Escobar (2001: 28) when she says "transfer errors should also be taken as an indication of intermediate levels, but not as evidence that L2 acquisition is impossible. We observed that the subjects who had been exposed to the target language for a longer period had gained more native-like knowledge than those in the other groups".

(b) We may say that *output* enhances attention to form. In this regard, we agree with Swain and Lapkin (1995: 37) in their thesis that "output facilitates second language learning in ways that are different from, or enhance, those of input", and suggest that "perhaps one

function of output in second language learning might be to force the learner to move from the semantic processing prevalent in comprehension to the syntactic processing needed for production". Ellis (1992: 120) also argues that "practice may only facilitate acquisition directly if it is communicative, i.e. meaning-focused in nature". There was evidence that both groups improved in the second test. As a consequence, the Output Hypothesis may be confirmed here.

(c) Error correction and recast can be beneficial and enhance uptake. These forms of negative feedback were crucial for the experiment. We think that both groups, especially group 1, improved in the second task due to the session dedicated to error correction and recast in class. So, we say that *output* supported by negative feedback may enhance L2 development. In this respect, Krashen (2002) argues that the impact of correction is greater when form-focus and time are present when the correction is done, correction is focused, form-focus and time are present when the impact of correction is tested, and the test is given soon after the treatment.

6. CONCLUSION

After a review of conditional sentences, particularly, *the past hypothetical/ counterfactual conditional*, we carried out a research experiment on the acquisition of the target structure. The experiment was made with two groups of adult Spanish learners of Technical English. Group 1 belonged to the first year of the Computer Science degree at the University of Las Palmas, and the participants had an intermediate level. Group 2 belonged to the second year and the participants´ level ranged from upper-intermediate to advanced.

The tasks selected in the two tests were the following: (a) *a fill-in-the blank and rephrasing task*, and (b) *an output task: a text reconstruction*.

Our aim was to investigate how the linguistic difficulty of English conditionals affected our students´ interlanguage production of these constructions, particularly past hypothetical/ counterfactual, and to a lesser extent, mixed-time-reference counterfactual conditionals.

On the one hand, regarding the first task, we suggest that the problems encountered by group 1 in acquiring the past hypothetical/ counterfactual conditional in English, were due to the syntactic complexity of the target form, rather than learners´ trouble doing the English conditional reasoning adequately. Consequently, we can say that *the cumulative complexity principle* can be confirmed here. However, the results of data analysis showed that this was not the only reason. There was evidence of L1 transfer effects interacted with the syntactic difficulty in our students´ production of English conditionals.

In contrast, group 2 showed no L1 transfer effects, so there was evidence of L2 development. This confirms our hypothesis that more advanced learners show development towards the L2 value in their interlanguage stages.

On the other hand, with respect to the second task, both groups improved. Group 1 improvement was more evident than group 2, especially as regards the IF-C, because group 2 performed very well in the first task.

We think that the uptake regarding the second task, especially in group 1, was due to both, the time dedicated to negative feedback and the kind of task: *output*. According to these results, we may say that *output* can both enhance attention to form, and facilitate the noticing of problems in the IL, and the relevant features in the input.

Likewise, negative feedback: *error correction and recast*, combined with *output* can be beneficial and enhance uptake.

Taking all this into account, we agree with Celce-Murcia and Larsen-Freeman (1999) when they say that acquisition of the English tense-aspect system and the modal auxiliaries is a prerequisite for ESL/EFL learners to master English conditionals. Students may tend to use the grammatical structure they have acquired even when they proceed to learn a more complex structure. As Chou (2000) suggests, instructors should help learners to be aware of the temporal reference cues at the lexical, syntactic, or discourse levels, so that learners can make better judgements of the temporal references of antecedents and consequences. We also agree with Schmidt´s Noticing Hypothesis (1990), which claims paramount importance for noticing in language learning. Finally, it is essential for teachers to recognize how L1 transfer effects may interact with the embedded structural complexity of past hypothetical/ counterfactual and mixed-time-reference counterfactual conditionals, so that they can analyze students´ error types, adapt their methodology, and help learners acquire the target forms.

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APPENDIX 1: THE REAL TASKS

a. FILL-IN-THE-BLANK/ REPHRASING TASK

The following sentences are all related to the past hypothetical/ counterfactual conditional. Put the verbs into the correct form:

1. I didn´t know you were in hospital. If ................ (I/ know), ............... (I/ go) visit you.

2. Unfortunately, American computer makers lost market share to their foreign competitors.  . If ............... (American computer makers/ make) their products easier to use, ............... (they/ not/ lose) market share to their foreign competitors.

3. What a pity I didn´t have any money! If ............... (I/ have) money ................ (I/ buy) the latest colour laser printer model.

4.

A: How was your English course in Cambridge?

B: It was OK, but ................ (we/ enjoy) it more if ............... (the weather/ be) better.

5. Brian got to the station in time to catch his train. If ................ (he/ miss) it, ................ (he/ be) late for his job interview.


Now, write a sentence with *if* for each situation.

6. I did not save the information, so I lost all my documents in my computer.

   If I....................................................................................................................

7. The accident happened because the driver in front stopped so suddenly.

   If the driver in front....................................................................................

8. I was able to buy the computer only because John lent me the money.

   ..........................................................................................................

9 As the American electronic industry lost track of its competitors, it began to decline.

.........................................................................................................

10. Digital Research became a minor player in the market because they failed to develop their operating system, DR/DOS.

.........................................................................................................

b. OUTPUT TASK

Read the text carefully for full understanding. Underline the words and the parts of the reading you will need for the reconstruction of the text. Note-taking is permitted.

If the computer had not been invented, the world would probably not be the way we know it nowadays.

Babbage is known to have been the father of the computer. He was a bad-tempered genius who discovered the principles on which the computer is based, although he did not succeed in developing it himself because he was born too soon to take advantage of modern electronics. In fact, he was born in the nineteenth century, and suffered the disappointment of having an idea ahead of its time, an idea that the technology of his era could not fulfil.

Undoubtedly, if machinery in that time could have been produced to the standards he required, he would have created the first computer in history, but if he had not realised that the machine needed a memory, we might never have known the modern computer.

It is obvious from his notes that Babbage was on the right lines, but if he had not understood the idea of programming the machine, his colleagues might not have followed his theories. However, it was not until the twentieth century that John von Newman, a mathematician who worked at Princeton University, helped design ENIAC.

Newman is considered the inventor of the general-purpose computer. He had the idea of storing the computer's instructions as a set of numbers in its memory, so that these numbers

would direct the operation of the computer and could be changed more easily than the instructions of the earlier machines. Whereas instructions in earlier machines were part of hardware, Eniac´s were not. But, what would have occurred if all this had not happened? It is not difficult to predict that software would probably not have been developed, and we would not have seen the start of modern technology. In fact, we might never have known the first general-purpose computer.

Likewise, if the microchip, which made the PC possible, had not been invented years later, we would not be enjoying the technological advances we are living today. For example, computer networks might never have been created and hence, we would not be using internet.

The impact of fibre optics has revolutionised the telecommunication world, but according to some scientists, if fibre optics had not been installed on a large scale during the last decade, the price of network access would not have been reduced, and as a result, global communication would not be more and more a part of our professional and personal lives.

The widespread availability of computers has in all probability changed the world for ever.

## APPENDIX 2: PERCENTAGES OF SUCCESS AND ERROR

| Pupil | IF-C | | | | MC | | | |
|---|---|---|---|---|---|---|---|---|
| | Used | Success | Errors | % Success | Used | Success | Errors | % Success |
| 1 | 10 | 7 | 3 | 70,00 | 10 | 6 | 4 | 60,00 |
| 2 | 10 | 8 | 2 | 80,00 | 10 | 5 | 5 | 50,00 |
| 3 | 10 | 6 | 4 | 60,00 | 10 | 5 | 5 | 50,00 |
| 4 | 10 | 10 | 0 | 100,00 | 10 | 8 | 2 | 80,00 |
| 5 | 10 | 9 | 1 | 90,00 | 10 | 7 | 3 | 70,00 |
| 6 | 10 | 5 | 4 | 50,00 | 10 | 4 | 6 | 40,00 |
| 7 | 10 | 4 | 6 | 40,00 | 10 | 3 | 7 | 30,00 |
| 8 | 10 | 6 | 4 | 60,00 | 10 | 3 | 7 | 30,00 |
| 9 | 10 | 10 | 0 | 100,00 | 10 | 7 | 3 | 70,00 |
| 10 | 10 | 5 | 5 | 50,00 | 10 | 2 | 8 | 20,00 |
| Avge. | | | | 70,00 | | | | 50,00 |

Table 1. Group 1: fill-in the blank/ rephrasing task

| Pupil | IF-C | | | | MC | | | |
|---|---|---|---|---|---|---|---|---|
| | Used | Success | Errors | % Success | Used | Success | Errors | % Success |
| 1 | 4 | 3 | 1 | 75,00 | 5 | 3 | 2 | 60,00 |
| 2 | 3 | 3 | 0 | 100,00 | 4 | 3 | 1 | 75,00 |
| 3 | 5 | 4 | 1 | 80,00 | 6 | 4 | 2 | 66,67 |
| 4 | 4 | 4 | 0 | 100,00 | 5 | 4 | 1 | 80,00 |
| 5 | 4 | 4 | 0 | 100,00 | 6 | 4 | 2 | 66,67 |
| 6 | 3 | 3 | 0 | 100,00 | 5 | 4 | 1 | 80,00 |
| 7 | 5 | 3 | 2 | 60,00 | 6 | 3 | 3 | 50,00 |
| 8 | 4 | 2 | 2 | 50,00 | 5 | 3 | 2 | 60,00 |
| 9 | 4 | 4 | 0 | 100,00 | 7 | 5 | 2 | 71,43 |
| 10 | 3 | 2 | 1 | 66,67 | 5 | 2 | 3 | 40,00 |
| Avge. | 3,9 | | | 83,17 | 5,4 | | | 64,98 |

Table 2. Group 1: output task

|  | IF-C | | | | MC | | | |
|---|---|---|---|---|---|---|---|---|
| Pupil | Used | Success | Errors | % Success | Used | Success | Errors | % Success |
| 1 | 10 | 10 | 0 | 100,00 | 10 | 9 | 1 | 90,00 |
| 2 | 10 | 10 | 0 | 100,00 | 10 | 10 | 0 | 100,00 |
|  | 10 | 10 | 0 | 100,00 | 10 | 9 | 1 | 90,00 |
| 4 | 10 | 10 | 0 | 100,00 | 10 | 10 | 0 | 100,00 |
| 5 | 10 | 10 | 0 | 100,00 | 10 | 9 | 1 | 90,00 |
| 6 | 10 | 9 | 1 | 90,00 | 10 | 8 | 2 | 80,00 |
| 7 | 10 | 10 | 0 | 100,00 | 10 | 10 | 0 | 100,00 |
| 8 | 10 | 10 | 0 | 100,00 | 10 | 9 | 1 | 90,00 |
| 9 | 10 | 10 | 0 | 100,00 | 10 | 10 | 0 | 100,00 |
| 10 | 10 | 10 | 0 | 100,00 | 10 | 9 | 1 | 90,00 |
| Avge. | | | | 99,00 | | | | 93,00 |

Table 3. Group 2: Fill-in the blank/ rephrasing task

|  | IF-C | | | | MC | | | |
|---|---|---|---|---|---|---|---|---|
| Pupil | Used | Success | Errors | % Success | Used | Success | Errors | % Success |
| 1 | 5 | 5 | 0 | 100,00 | 7 | 7 | 0 | 100,00 |
| 2 | 4 | 4 | 0 | 100,00 | 7 | 7 | 0 | 100,00 |
| 3 | 5 | 5 | 0 | 100,00 | 6 | 5 | 1 | 83,33 |
| 4 | 6 | 6 | 0 | 100,00 | 8 | 8 | 0 | 100,00 |
| 5 | 6 | 6 | 0 | 100,00 | 7 | 7 | 0 | 100,00 |
| 6 | 5 | 5 | 0 | 100,00 | 7 | 6 | 1 | 85,71 |
| 7 | 7 | 7 | 0 | 100,00 | 8 | 8 | 0 | 100,00 |
| 8 | 6 | 6 | 0 | 100,00 | 9 | 8 | 1 | 88,89 |
| 9 | 7 | 7 | 0 | 100,00 | 10 | 9 | 1 | 90,00 |
| 10 | 6 | 6 | 0 | 100,00 | 8 | 8 | 0 | 100,00 |
| Avge. | 5,7 | | | 100,00 | 7,7 | | | 94,79 |

Table 4. Group 2: Output task

APPENDIX 3: RATES OF SUCCESS

**Success (%)**



|  | Group 1 | Group 2 | U-Mann-Whitney |
|---|---|---|---|
| ■ IF-C | 70,00 | 99 | **P=0.002** |
| ■ MC | 50,00 | 93 | **P=0.0001** |
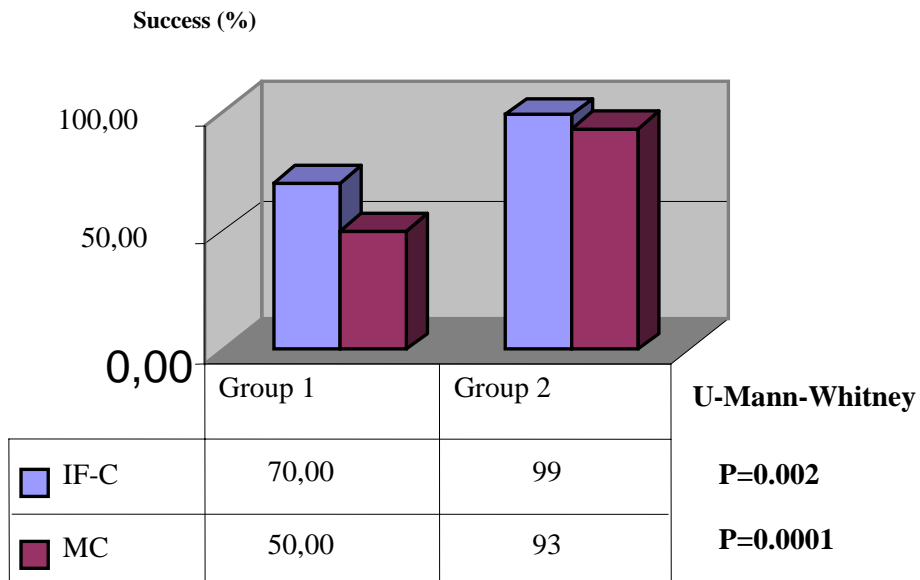
Figure 1. Task 1: Fill-in the blank/ rephrasing

**Success (%)**



|  | Group 1 | Group 2 | U-Mann-Whitney |
|---|---|---|---|
| ■ IF-C | 83,17 | 100 | **P=0.06** |
| ■ MC | 64,98 | 94,79 | **P=0.0001** |

Figure 2. Task 2: Output

| | Group1 1 | Group22 | U-Mann Whitney |
|---|---|---|---|
| IF-C | 3,90 | 5,7 | P=0.0001 |
| MC | 5,40 | 7,7 | P=0.0001 |

Figure 3. Task 2: Output