

Effects of Instructional Strategies on Second Language Acquisition Processes

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Research has demonstrated that second language learners benefit considerably from form-focused instruction within the context of a communicative program. Thus, it is suggested that second language teachers should provide guided, form-based instruction in a meaningful context. This paper presents a discussion of instructional strategies based on the following dimensions concerning code-focused L2 instruction: (a) experiential-analytic, (b) implicit-explicit, and (C) intralingual-crosslingual. The mode by which the acquisition of *in-that-clause* constructions can be assisted by classroom instruction, as well as which instructional strategies would be most effective in promoting the learning of this feature, are explored in reference to the principles described in the Harley's (1993) experimental study. The explicit and analytic instructional strategies seem to be effective for teaching syntactically and semantically peculiar *in-that-clause* constructions.

Much of the research on the effect of instruction on second language acquisition has revealed that some grammatical features are better learned in the context of formal instruction. For instance, a study by Pica (1983; 1985) provides evidence that formal instruction affects production accuracy. She found that the learners who had access to formal instruction performed some grammatical features more accurately than the naturalistic learners did. However, naturalistic learners outperformed the instructed learners in other grammatical features. Moreover, for another linguistic feature, no difference was observed between the groups. In explaining this phenomenon, Pica suggests instruction only aids the acquisition of features that manifest transparent form-function relationship and which are formally easy to acquire (1985: 221).

Furthermore, it is suggested that "full" acquisition is possible when students learn structures that are within the range of their linguistic and metalinguistic capacities, and this acquisition can result in learners using the structures in a wide range of linguistic contexts, particularly if the type of formal instruction matches learners' preferred approach to learning (Doughty 1991). In addition, Long (1983: 374) posits that the rate of learn-

ing and higher levels of proficiency appear to be facilitated by instruction. According to Rutherford and Sharwood-Smith, on the other hand, what instruction does is not so much enable learners to fully acquire what is taught, but prepare them for its eventual acquisition (Rutherford & Sharwood-Smith 1985: 275). In other words, as Gass (1991: 137) puts it, instruction "triggers the initial stages in what ultimately results in grammar restructuring." Similarly, Ellis describes formal instruction as taking the form of "conscious raising," however, it is directed at explicit rather than implicit knowledge (1994: 843). He also suggests that the effectiveness of an implicit or explicit instruction might depend on a number of variables, such as the type of linguistic feature being taught and the characteristics of the individual learner.

Though Krashen (1982) contends that formal instruction can contribute to the learning of explicit knowledge, he does not believe that it can result in development of implicit knowledge. Krashen further proposes that it is the implicit knowledge that is needed for communication, and that the explicit knowledge cannot be converted into implicit knowledge. Moreover, a study by Pienemann (1987) indicates a possible negative effect of premature instruction: he found that learners avoided using certain linguistic features that they had been taught in an attempt to avoid making an error. Pienemann posits that the avoidance was the result of being forced to produce the structure that was outside the range of their linguistic capacity at the time. Finally, with respect to the durability of instruction, there is sufficient evidence to suggest that learners retain at least some of the grammatical structures they have learned through form-focused classroom instruction. Classrooms differ in terms of the principles which guide teachers in their language teaching methods and techniques. To this end, Harley (1993) has proposed several principles concerning code-focused L2 instruction, and has discussed instructional strategies based on the following dimensions: (a) experiential-analytic, (b) implicit-explicit, and (c) intralingual-crosslingual. This paper will review Harley's experimental study of instructional strategies and second language acquisition in relation to syntactically and semantically peculiar *in-that-clause* constructions.

The Experiential-Analytic Dimension

An experiential teaching strategy, which employs substantive or motivated topics or themes, invites the learner to focus on the message rather than any specific aspect of the form, and to use the language for a purpose. Through the experiential strategy students are involved in language use in getting meaning across. This teaching strategy is an essential feature of the communicative approach—language is learned in the context of real communication.

When teachers employ an experiential strategy, the focus of attention is not the second language itself but the messages conveyed by it. Experien-

tial activities are arranged so as to engage the learner in some purposeful tasks, such as projects, games, or problem solving which involve authentic communication. What distinguishes the experiential strategy from one in the analytic strategy is that it constitutes a reaction to the message, its content and meaning rather than a reaction to the code.

An analytic strategy, in contrast, is based on techniques of study and practice. The language learner pays attention to formal or functional features of the language. While the experiential strategy is characterized by focusing on a message which is presented in an authentic context, the analytic strategy lacks strong communicative intent because the focus is on aspects of the L2, for example, phonology, grammar functions, discourse, and sociolinguistics. Stern (1992: 310) suggests that a focus on code is a valuable and indeed necessary part of language teaching. In addition, according to Omaggio (1986: 91), in order that students learn how to use the language forms they have learned in authentic communication situations, the forms should be presented and practiced in communicative contexts.

In Harley's (1993) study, the analytic strategy was dominant and the experiential one was in a secondary role. However, the outcome of her previous experimental study of French immersion students has revealed that the combination of the two strategies was helpful in speeding up the development of grammatical competence (1989: 357). Due to the complexity of the rule system and limitations of studying a language by either analytic or experiential methods alone, Stern suggests that they should complement one another (1992: 311). Moreover, teachers should take into consideration the students' age, maturity, and educational background in deciding the use of either or both strategies.

The Implicit-Explicit Dimension

The term *implicit* and *explicit* are not to be equated with the terms *analytic* and *experiential* (Ellis 1994: 661). The term *formal instruction* can be equated with analytic instruction, and such instruction can be either implicit or explicit. Formal instruction, that takes the form of implicit treatment, requires learners to induce rules from examples given to them, whereas in explicit instruction learners are given a rule which they then practice using. Advocates of an implicit teaching strategy assume that languages are much too complex to be fully described, and even if the entire rule system could be described, it would be impossible to keep all the rules in mind and to rely on a consciously formulated system for effective learning. Therefore, they prefer intuitive rather than intellectual modes of learning. In this approach, learners are less concerned with the details of understanding and more with listening comprehension directed to the overall content (Stern 1993: 343).

The explicit teaching strategy, on the other hand, focuses on the characteristic features of the language, the language function, and makes an ef-

fort to acquire a conscious and conceptual knowledge of it. In other words, a cognitive process leads to an explicit knowledge of the language. Both implicit and explicit teaching and learning strategies have a function to perform in any type of language classroom, and are necessary complements to one another. An important consideration is to achieve balance between the two strategies and the extent to which the two teaching strategies will be emphasized and under what circumstance depends on the objectives of the course, the teacher's intentions, and assessment of the learners' needs (Stern 1993: 344).

The Intralingual-Crosslingual Dimension

According to Stern (1993), *intralingual* techniques may be analytic or experiential; they may be used for the teaching of linguistic features, such as phonology, grammar, or lexis, or for teaching substantive content. The intralingual strategy is implemented entirely through the L2, and encourages students to think in the second language. All intralingual techniques are intended to provide opportunities for proficiency development via listening and reading as well as speaking and writing in the L2.

While the absence of translation is a characteristic of the intralingual strategy, sentence translation exercises are a principal technique of the *crosslingual* strategy. Therefore, crosslingual techniques use L1 as points of reference, and the rationale behind the crosslingual strategy is that the new language is learned on the basis of a previously acquired language. Hence, this technique makes use of the L1 systems to help learners build on the presence and strength of them as a basis for L2 learning. According to some researchers, this has positive results wherever the L1 and L2 are similar, however, it acts as negative transfer or interference where there are differences (Lado 1957; Stockwell, Bowen, & Martin 1965). Again, the two strategies relate directly to the language learning objectives. Perhaps a mixture of intralingual and crosslingual techniques employed by teachers and their students is most effective for different conditions of language learning. *In-that-clause* constructions might be one of those linguistic properties that is difficult to acquire by L2 learners without receiving form-focused classroom instruction.

The Syntax of In-That-Clause Constructions

Constructions such as "*Penn is different from Penn State in that it is a private university; whereas, Penn State is a state university*" are peculiar with regard to their syntactic and semantic properties (Yang 1993: 35). Such constructions are referred to as *in-that-clause* constructions, and are composed of two clauses—a main clause and an *in-that-clause*. Syntactically, *in-that-clause* is exceptional in that the preposition *in* selects sentential complements rather than noun phrase complements as, in general, prepositions in English select noun phrase complements—that is, nouns or ger-

unds, and not sentential complements. Learners might be perplexed when considering that the word *in* might not be a preposition; however, through an analytic teaching strategy, an instructor can explain that *in-that-clauses* may be replaced by *in-gerundive clauses*, where *in* is a genuine preposition. Consider the following examples:

- 1 (a) All of us are students *in that* we are learning new things all the time.
(Source: Herrmann, 1975, On 'In that,' *Berkeley Linguistic Society* 1, p. 192)
- (b) All of us are students *in learning* new things all the time.
- 2 (a) He is sick *in that* he is unable to cope with reality.
(Source: *Ibid.*, p. 189)
- (b) He is sick *in being* unable to cope with reality.
- 3 (a) Paul differs from Paula *in that* he lacks concentration.
- (b) Paul differs from Paula *in lacking* concentration.

The (a) sentences in 1-3 may be replaced, with no semantic change, by the corresponding (b) sentences. That is, the *in-that-clause* may be replaced by the *in-gerundive clause*. Yang (1993: 37) posits that this further supports the fact that the word *in* is a genuine preposition.

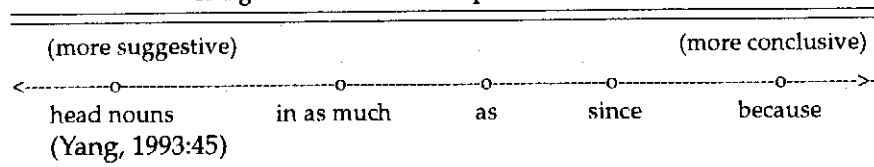
Furthermore, Yang (1993: 37) proposes the *head noun deletion hypothesis*: some sort of head noun may be inserted between *in* and *that*, though the head noun is usually deleted on the surface. The possible head nouns are: *sense, respect, fact, regard, property, point*, and the like. Compare the (a) and (b) sentences below:

- 4 (a) Jessica is similar to Dan *in that* she has black hair.
- (b) Jessica is similar to Dan *in the {sense, respect, fact, regard} that* she has black hair.

In-that in 4(a) may be replaced by *in the {sense, respect, fact, regard} that* in 4(b). The above head nouns may also be deleted without incurring any semantic change to the passages. The same context may allow more than one substitute and different contexts allow different substitutes. This suggests that one should read the context with great care. There is no clear-cut pattern as to which head nouns fit in the *in-that-clause*, however, the most preferred head noun in the literature is *sense*, which forms *in the sense that-clause* (Yang 1993: 41). Furthermore, in an attempt to broaden the range of substitutable expressions for the *in-that* part of the *in-that-clause* construction, and to determine to what extent the grammatical expressions, *in the sense* and *because/since* can be interpreted are examined in reference to diagram 1, which is intended to show that the case of head nouns is more suggestive with regard to the semantic strength of the *in-that-clause*, whereas the case of reason conjunctors is more conclusive. The degree of what is conclusive is according to different conjunctors. For example, *because* occupies what is most conclusive, and *in as much as* occupies what is least

conclusive, beyond which lies the area of what is suggestive (Yang 1993: 45).

Diagram 1
Range of substitutable expressions for *in-that*



The Semantics of *In-That-Clause* Construction

Semantically, the main clause has a certain range of assertions, and the *in-that-clause* has certain semantic restrictions on its function and use (Yang 1993: 35). The types of assertions which are allowed in the main clause are limited with respect to certain properties about the subject/topic. For example, if a sentence provides mere information stimulation, the sentence is not naturally connected with *in-that-clause*:

- 5 (a) * Henry met Don *in that* they shook hands.
 (b) * Grace does not like sushi *in that* she does not touch sushi when she is invited to a Japanese home.

In 5(a), the proposition that Henry met Don, and in 5(b) the proposition that Grace does not like sushi provide mere information stimulation. Therefore, these main clauses do not fit the *in-that-clause*. Concerning the *in-that-clause*, Herrmann (1975) has found that *in-that-clauses* limit the domain over which an assertion is held to be true and remove the speaker from the responsibility for possible interpretations other than the one explicitly mentioned, and thus stretch or limit the meaning of an expression. Consider the following examples:

- 6 (a) Sam is shy *in that* he is unable to tell Erica that he likes her.
 7 (a) Christine is a good tennis player *in that* she wins every match.

The *in-that-clause* in each of these sentences specifies how the speaker believes the main assertion to be true. The speaker in 6(a) has only asserted that as far as his inability to tell Erica that he likes her is concerned, Sam is shy; otherwise, he may be bold. Similarly, the speaker of 7(a) has only asserted that as far as her ability to win every match is concerned, Christine is a good tennis player; otherwise, she may be a poor tennis player. For example:

- 6(b) Sam is shy *in that* he is unable to tell Erica that he likes her, but otherwise he is bold.
 7 (b) Christine is a good tennis player *in that* she wins every match, but otherwise her style is terrible.

While the sentences above only assert the truth of a statement with respect

to a specifically mentioned domain, the sentence 8 below is unacceptable since the main assertion is so obviously true no matter how we look at it.

- 8 * Salmon are fish *in that* they swim so well.

Therefore, as Herrmann (1975) points out, the use of the *in-that-clause* rests in part on the ability of the main assertion to be true in some ways and false in others. He also suggests that the *in-that-clause* does not allow redundant association with the main assertion. For example:

- 9 * Dr. Jo is a professor *in that* she teaches at a university.
 10 * Those men are thieves *in that* they are robbers.

(Herrmann 1975: 192)

Again, these sentences are not acceptable because teaching at a university in the *in-that-clause* redundantly repeats the semantic content of the main assertion; and being robbers does not stretch the meaning of thief from its literal one, nor limits the domain over which "those men are thieves" is true. In other words, the sentences above are unacceptable due to the redundant overlapping of the semantic content between the main clause and the *in-that-clause* (Yang 1993: 54). In sum, it should be noted that the semantic property of the main clause is naturally compatible with the specification function of the *in-that-clause*. A total harmony between the two parts has to be achieved; otherwise, the whole construction turns out to be odd.

Analytic L2 Teaching

As Lightbown and Spada (1993: 106) suggest, the challenge is to determine which features of language will need explicit focus in order to be acquired even if learners have adequate exposure to the language. *In-that-clause* constructions are features of the L2 code that may need explicit instruction and which could benefit from analytic support in the context of a communicative, content-based language classroom. An analysis of this particular feature can be guided by the following principles advocated by Harley (1993).

The first is the *compensatory salience principle*. This principle can be interpreted as suggesting that analytic strategy is needed in teaching *in-that-clause* constructions since this feature is not obvious to the learner and is also infrequent and lacks perceptual salience in the L2 input (Harley 1993: 251). Due to its syntactic and semantic peculiarity, this is one of the linguistic properties that is difficult to acquire by L2 learners without receiving analytic and explicit instruction in it.

This is further extended by the *barrier-breaking principle*, which posits that the misanalysis of *in-that-clause* constructions can create confusion in interpretation, and this could impede the learner from acquiring a major subsystem of the L2 code. Thus, teachers can employ analytic techniques to teach *in-that-clause* constructions and help learners break into the sys-

tem and identify the differences of the target language feature from their L1.

Another important guideline for teachers to follow is the *integration principle*. This principle answers the question of when to focus analytically on certain constructions. According to the integration principle, analytic, code-focused teaching of a grammar is appropriate at all stages, as long as it is within the range of the students' linguistic and metalinguistic capacities; and it is relevant to the goals of the learners. *In-that-clause* constructions are useful in natural communication and an analytical instruction of this feature in school-based L2 programs may also raise grammatical awareness among older immersion students.

Finally, the *learning task principle* states that in addition to the integration principle, the teaching strategy should be determined by the "nature of the language learning task" (Harley 1993: 255). In order to implement analytic strategies of in-that-sentence constructions in a communicative ESL classroom, the teacher could give explicit instruction and then use the constructions in the "natural" talk on topics of the students' interests, which are within their linguistic capacity; and also provide the opportunities for meaningful productive use of *in-that-clause* constructions in the classroom.

Conclusion

By understanding how form-based instruction can be most effectively incorporated into a communicative framework, teachers will be better able to judge the merits (and demerits) of different instructional strategies. The analytic strategy has an important part to play in second language teaching. Cautious use of this strategy could result in successful teaching of second language with recognition of its limitations and possible shortcomings. Moreover, analytic strategy is found to be more effective when it is complemented by experiential procedures, such as those found in experiential classrooms, in which meaning and fluency is emphasized over accuracy and error avoidance. No researcher or teacher can firmly assert that only one of the strategies is beneficial under all circumstances. Therefore, a combination of these experiential and analytic strategies seems to be a valid approach to language learning. The attempt to encourage meaning making and fluency should be matched by an equal attempt to develop accuracy.

This paper has reviewed Harley's experimental study of instructional strategies and second language acquisition in relation to syntactically and semantically peculiar *in-that-clause* constructions. The explicit and analytic instructional strategies seem to be effective for teaching this grammatical feature. Teachers should, however, bear in mind that there is evidence to suggest that this kind of form-focused instruction is better learned in the context of communicative activities (Ellis 1994: 659). Therefore, it is suggested that teachers not separate formal instruction from communica-

tive contexts, which are essential in second language learning. Instead, it is advised that teachers promote both communication and accuracy. As Ellis (1994: 659) posits, "Formal instruction is best seen as facilitating natural language development rather than offering an alternative mode of learning." In sum, teachers should be open to the specific merits and demerits of the strategies, and implement them in the classroom in accordance with the research findings and their professional judgment on the benefit to be derived.

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WORKING PAPERS IN EDUCATIONAL LINGUISTICS

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