\Perceived learning difficulty and actual performance: Explicit and implicit knowledge of L2 English grammar points among instructed adult learners\

**\SPH\**Appendix A

\TT\**Table A1.** The taxonomy of implicit and explicit learning difficulty

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| --- | --- | --- |
| \TCH\Variable | Operational definition | Learning difficulty |
| \TB\Frequency | How frequently an L2 construction occurs in the input | High frequency decreases implicit learning difficulty. |
| Perceptual salience | How easily an L2 construction can be perceived in spoken input | High perceptual salience decreases implicit learning difficulty. |
| Communicative redundancy | How much an L2 construction contributes to the communicative intent of a message | High communicative redundancy increases implicit learning difficulty. |
| Opacity of form-meaning mapping: One form, *X* meanings | To what extent an L2 form maps onto a single or multiple meanings/functions | High opacity increases implicit learning difficulty. |
| Opacity of meaning-form mapping: One meaning, *X* forms | To what extent an L2 meaning/function maps onto a single or multiple forms | High opacity increases implicit learning difficulty. |
| Schematicity | The extent to which a linguistic construction is schematic or specific and whether a metalinguistic description covers a schematic or a specific linguistic construction | High schematicity decreases implicit and explicit learning difficulty. |
| Conceptual complexity | The number of elements that need to be taken into account in a metalinguistic description—i.e., the number of categories and relations among categories included in the description | High conceptual complexity increases explicit learning difficulty. |
| Technicality of metalanguage | The relative familiarity and abstractness of the metalanguage used in the metalinguistic description | High technicality of metalanguage increases explicit learning difficulty. |
| Truth value | The extent to which a metalinguistic description applies without exception | High truth value decreases explicit learning difficulty.  |

\TSN\*Note.* Adapted from Roehr and Gánem-Gutiérrez (2009, p. 88).

**\AP1\Application of the taxonomy for making difficulty judgements**

\APT\Criteria aimed at assessing implicit learning difficulty are applied to the linguistic construction; criteria aimed at assessing explicit learning difficulty are applied to the associated metalinguistic description. Qualitative (and inevitably subjective) difficulty judgements are made, using the labels *high*, *medium*, and *low*.

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| --- | --- | --- | --- | --- |
| (1) | Simple present tense (third-person *-s*) | When a verb in the third-person singular is used in the simple present tense, an *-s* or *-es* is added to the main verb. | Alex **wants** to go home. | \*Sara cook every day. |

In order to assess implicit learning difficulty, a judge would ask him- or herself how often the construction appears in the linguistic input, how easily it can be perceived, whether its accurate use is required to get the intended message across, whether the form has multiple meanings and whether the meaning expressed can be represented by multiple forms, and whether the construction is specific or schematic. In the case of the simple present third-person *-s*, a judge may decide that the construction is quite frequent (medium); that it is not salient (high learning difficulty); that accurate use is communicatively redundant (high learning difficulty); that the form *-s* has multiple meanings—for example, plural and possessive—and that it is thus relatively opaque (high learning difficulty); and that the meaning expressed can be represented by an additional form, a third-person pronoun or a proper name in the singular (medium). Finally, the construction is only partly schematic (medium).

In order to assess explicit learning difficulty, the judge would ask him- or herself whether the metalinguistic description refers to a specific or schematic linguistic construction, whether the metalinguistic description is conceptually complex, whether or not the metalanguage used is technical, and whether the metalinguistic description applies without exception. In the case of the pedagogical grammar rule associated with the third-person *-s*, the judge may decide that the construction described is only partly schematic (medium), as noted previously. She or he may further decide that the metalinguistic description is conceptually simple (low learning difficulty), that the metalanguage is not technical (low learning difficulty), and that the description applies without exception (low learning difficulty). Based on such an assessment, it would appear that the simple present third-person *-s* is easy to learn as explicit knowledge but considerably more difficult to learn as implicit knowledge.

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| --- | --- | --- | --- | --- |
| (2) | Relative clauses | When a relative clause in which the relative pronoun functions as an object is used, a resumptive pronoun is not permitted. | **The table** that I saw the other day **is** expensive. | \*The car that my father bought it is new. |

In order to assess the implicit learning difficulty of this grammar point, a judge may decide that the construction is not very frequent (high learning difficulty); that it is quite salient (medium); that accurate use is communicatively redundant (high learning difficulty); that the form (relative pronoun) can have one of two meanings, that is, object or subject (medium); and that the meaning expressed can be represented by two additional forms, *which* and *who* (medium). Finally, the construction is entirely schematic (low learning difficulty).

In order to assess explicit learning difficulty, the judge may decide that the construction described is fully schematic (low learning difficulty), as noted previously. She or he may further decide that the metalinguistic description is conceptually complex (high learning difficulty), that the metalanguage is technical (high learning difficulty), and that the description applies without exception (low learning difficulty). Based on such an assessment, it would appear that the grammar point has a rather mixed profile for both explicit and implicit learning difficulty. It may well be easier to learn as implicit knowledge than the simple present third-person *-s*, but it will be more difficult to learn as explicit knowledge than that grammar point.

\SPH\Appendix B

\TT\**Table B1**. Demographic information about the participants

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| \TCH\Participant group | *n* | Gender | Age: mean (range) | L2 experience:mean (range) |
| \TB\Applied linguists | 3 | 2 males | 38 (34–44) | 11.7 years (11–13) of teaching specialist English/applied linguistics courses |
| Teachers | 11 | 5 males | 32 (24–39) | 8.6 (5–17) years of teaching nonspecialist English |
| Learners | 30 | 7 males | 23 (16–47) | 6.6 (1.5–17) years of learning nonspecialist English |

\SPH\Appendix C

\TT\**Table C1.** Targeted L2 grammar points

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| --- | --- | --- | --- |
| \TCH\Grammar point | Pedagogical grammar rule | Example sentence | Typical learner error |
| \TB\Simple past tense | When a finished action or event in the past is expressed, the simple past tense is required. | He **visited** his brother yesterday. | \*When he finished his homework, he watch a movie. |
| Indefinite articles | When a countable noun is first mentioned, an indefinite article is required. | They had **a** good class today. | She bought the new house. |
| Simple present tense (third-person *-s*) | When a verb in the third-person singular is used in the simple present tense, an *-s* or *-es* is added to the main verb. | Alex **wants** to go home. | \*Sara cook every day. |
| Comparative adjectives | When a comparative is formed for a one-syllable adjective, *-er* is added. When a comparative is formed for an adjective with two or more syllables, *more* is placed in front.  | Carlos is **taller** than his sister. My book is **more expensive** than yours.  | \*Your car is more faster than mine.\*Mike is more tall than Joe.  |
| Second conditionals (*if* clauses) | When an unreal or hypothetical situation is being expressed, the second conditional comprising an *if* clause with a past tense verb and a main clause with *would* + verb is used.  | If I **had** money, I **would** **buy** a car.  | \*If I know the answer, I would tell you. |
| Verb complements  | When the complement of a verb implies potentiality, the *to* infinitive construction is required.When the complement of a verb implies fulfilment, the -*ing* participle is required. | He started **to write** a story. He enjoys **driving** around the country.  | \*The boys want buy a new car. \*They finished to build the house.  |
| *Many* vs. *much* | When the quantity of something is being referred to, *many* is required for countable nouns and *much* is required for uncountable nouns.  | She has **many** activities to do during the school term.They don’t have **much** time. | \*I have many money.\*I didn’t see much people at school today. |
| Modal verbs | When a modal verb such as *must*, *should*, or *can* is used, it is followed by the base form of the main verb.  | I **must** do my homework. | \*I must to go to work. |
| *Yes/no* questions | When a *yes/no* question with the auxiliary verb *do* is used, the base form of the main verb is required.  | **Does** Maria like the new house?**Did** he go to the park? | \*Does Pedro works late?\*Did they took the book? |
| Prepositions + verbs (-*ing* participle) | When an action or event is expressed immediately after a preposition, a gerund is required.  | My son bought the house before **speaking** to me.  | \*The teacher is good at give grammar explanations. |
| *Since* vs. *for* | When the specific time of the beginning of an action is expressed, *since* is required.When the length of time of an action is expressed, *for* is required. | Jane has been in hospital **since** Tuesday.People have used mobile phones **for** many years. | \*I have been here for 9 o’clock this morning. \*Teachers have used computers since two decades. |
| Dative alternation | When an indirect object follows a direct object in a sentence, the preposition *to* is placed in front of the indirect object. | The man gave a letter **to** the boy.  | \*The woman paid the money the man. |
| Relative clauses | When a relative clause in which the relative pronoun functions as an object is used, a resumptive pronoun is not permitted. | **The table** that I saw the other day **is** expensive. | \*The car that my father bought it is new. |