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Autor: Starren, Marianne

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The influence of implicit versus explicit instruction during the first hours of the acquisition of negation by Dutch learners of Polish

Marianne STARREN
Center for Language Studies
Radboud University,
Erasmusplein 1, 6500 HD Nijmegen
marianne.starren@ru.nl

Le projet européen *VILLA* a comme objectif d'étudier les stades initiaux d'acquisition d'une langue étrangère (le polonais) par des apprenants de cinq langues maternelles différentes (français, anglais, allemand, néerlandais et italien, cf. Dimroth, Rast, Starren & Watorek 2013) sous un input contrôlé. Une des variables importantes était la présentation de l'input; deux méthodes d'enseignement sont employées pour deux groupes d'apprenants différents mais avec le même professeur de polonais. La première était entièrement basée sur une instruction implicite (meaning-focused) tandis que la deuxième était explicite et contenait des mises en évidences de formes (form-focused, visuellement et dans l'input du professeur) ainsi que des techniques d'élicitation et de reprises corrigées d'énoncés des apprenants. Ici, le focus sera sur l'acquisition d'un aspect sémantico-syntactique; la négation par des apprenants néerlandais en polonais après 7,5 et 14 heures d'enseignement.

Mots-clés:
première exposition L2, manipulation d'instruction d'input, explicite versus implicite, négation.

Keywords:
first exposure L2, manipulation of input instruction, explicit versus implicit, negation.

1. Introduction

The main theoretical objective of this study as part of VILLA (Dimroth et al. 2013) was to gain new insights into the structure and dynamics of elementary learner language varieties within a context where the learners' linguistic input can be thoroughly scrutinized. The controlled and recorded input given by the *same* language teacher in five different countries could be used as a point of reference for analysis of the receptive and productive knowledge that has been acquired.

In addition to learning more about beginning learners, a practical advantage to investigating learning at the early stages is that the Target Language (TL) input can be controlled and compared at selected time intervals with the learners' performance on TL tasks. In essence, the TL input, understood here as the teacher's TL productions and the students' TL interventions, can be studied and analyzed to see what effect it has on TL learning. Apart from external factors, such as exposure duration, the type of teaching, other (individual) factors play a rol such as such as motivation, learning style, cognitive abilities, prior linguistic knowledge, and language aptitude (Paradis 2011). Controlling all these va-

riables in order to study isolated factors has turned out to be next to impossible in a natural language learning setting and this is why research in the area of individual learner profiles has been scarce.

The VILLA project, *Varieties of Initial Learners in Language Acquisition* (Dimroth et al. 2013; VILLA Field Manual 2022) managed to find a format in which this could be done. The researchers recruited one single teacher, teaching a carefully devised curriculum for both instruction conditions – explicit versus implicit – to all of the thoroughly selected participants with no prior knowledge of the language to be taught, thus ensuring uniformity at: entry level, input, teaching method and exposure duration. In this longitudinal experiment (two weeks), 162 adult learners of five different project countries, recruited from universities in the Netherlands (Radboud Universiteit), the UK (York University), France (Université Paris VIII), Germany (Universität Osnabrück) and Italy (Università di Pavia) took part in a Polish language course in which they were exposed to 14 hours of monolingual input in 10 sessions, structured to such degree as to allow for the testing of learners in different linguistic areas (Dimroth et al. 2013).

The main aim of the VILLA project was to study both the initial stages of language acquisition and the role of input in this process, differentiating between students who were taught in an implicit learning condition without focus on form and those who were taught in the explicit learning condition in which (grammatical) forms were addressed more explicitly (by highlights in texts, for example, Dimroth et al. 2013).

2. **Investigating input in SLA Research**

2.1 The need to control input

There is one big methodological challenge to overcome in order to investigate the influence of input more precisely: 'the input that learners of an L2 actually receive must be assessed more accurately' (Flege 2009: 190). That means that somehow every aspect of what the L2 learner is exposed to has to be recorded. The first handful of studies that have been trying to do this was mostly based on artificial languages (Fedzechkina et al. 2016). However, artificial languages differ fundamentally from real languages in that they lack the complexity and variation seen in natural languages. The alternative to investigating artificial languages is examining the linguistic input of natural languages to which learners are exposed. Again, not many studies have attempted to do this, given the methodological difficulties to control, measure and record every piece of input a learner receives.

Other recent studies have used very small amounts of totally controlled natural language input. One extensive project was designed at the Max Planck Institute for Psycholinguistics in Nijmegen to observe what learners are capable of doing

upon first contact with a new language in an untutored setting. In these studies, participants with no knowledge of Chinese were exposed to a seven-minute videotape in Chinese (a weather forecast). Participants of the initial study, Dutch native speakers, were given no instruction or training, and were simply asked to watch the video. A series of post-exposure tasks revealed that participants acquired some information about word forms and meanings in the new language with only eight exposures of ten minutes when accompanied by gestures (Gullberg et al. 2012). Another study in which participants were exposed to the same Chinese videotape, found that Dutch participants could recognize words and extract phonotactic constraints and even word meanings after only seven minutes of exposure (Gullberg et al. 2010). Ristin-Kaufmann and Gullberg (2014) used the same Chinese videotape with groups of Swiss-German speakers. They also found that seven minutes was sufficient for participants to generalize their newly acquired phonotactic knowledge to reject non-words in Chinese. In sum, this research suggests an important role for implicit learning at the earliest stages of adult language acquisition, at least for processes, such as word recognition, which requires extracting information from a continuous stream of natural speech.

In her pilot-*VILLA* study, Rast (2008) set up a first exposure study that really started at the total beginning of the second language acquisition process, when the L2 learners had not received any input in the target language yet. Her participants were eight monolingual native speakers of French learning Polish in a classroom setting. The data obtained by this study were used to examine a wide range of facets of second language acquisition. She found, for example, that transparency and phonemic distance relative to the learners' L1 had an effect on their ability to correctly reproduce Polish words. Rast (2008) also investigated the acquisition of negation and her very preliminary conclusion was that the learner success of the *ab initio* French learners of Polish were not influenced by the type of instruction; one group had been given explicit knowledge of the negation rules in Polish and the other group did not and this difference in type of instruction did not have any influence on the acquisition of negation.

2.2 VILLA; different types of instruction

The *VILLA* project tried to overcome the limitations of the earlier first exposure studies by using a much larger group of participants, by starting at the immediate beginning of the acquisition process and by recording (audio and video) all input that the participants were exposed to. The participants had to do a variety of tests and tasks, in order for the researchers to obtain as much information as possible to investigate. Learners' performance was investigated at different levels of language (perception, comprehension, grammatical analysis and production), and the analyses cover different aspects of second language acquisition, e.g. phonology, lexicon, morpho-syntax, but also individual factors like age or gender and psychometric issues like motivation and working memory.

Within the VILLA Project, individual difference assessments focused on personality, nonverbal intelligence, language background, memory span, executive functioning skills, cognitive learning style, personal motivation, metalinguistic awareness skills (grammatical inferencing), meta-cognitive skills (associative learning), and phonological memory and awareness. Motivation was assessed through an adapted version of the Gardner Attitude and motivation test battery (2004); cognitive learning style was measured using data acquired from the Barsch Learning Styles Inventory (Barsch 1996). These variables were used to control individual differences of each participant, and were chosen due to their viability in demonstrating commonly identified differences present in participant data. A set of ten language tests – Phonème discrimination, Lexical decision, Word Recognition and Free Production, etc. – were used to test the participants' performance on the new language at all linguistic levels.

One group of adult learners was exposed to an implicit instruction and their performance was compared to another adult learner group whose attention (while receiving the same input) was directed at some form-related properties of the new language (by using bold or highlighting grammatical inflections, for example, see figure 1). They received an explicit instruction. The general teaching methodology was based on principles of the communicative approach. The linguistic content of the lessons was introduced in the context of real-life situations and through relevant speech acts. The input was provided to the learners in a total immersion setting; the teacher never resorted to the learners' native languages.

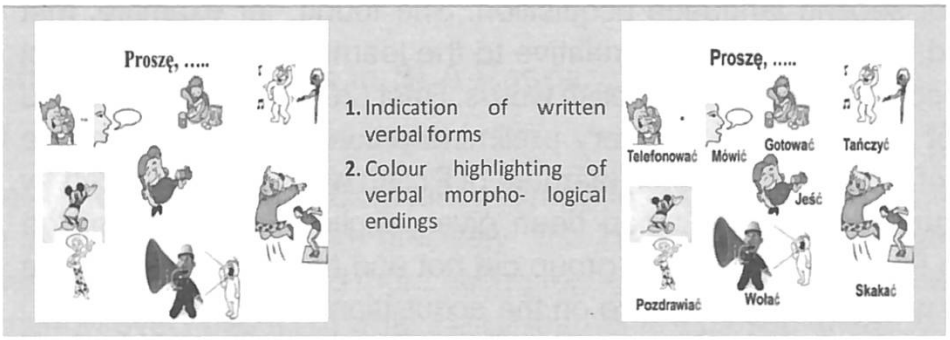


Fig 1. Implicit instruction: Focus on Form *vs* Explicit instruction

The syllabus consisted of a mixture of prefabricated building blocks (e.g. recordings of dialogues, short video clips etc.) that were the same for both learner groups and the semi-spontaneous oral input produced by the instructor. Themes included typical topics used in communicative-style beginning language instruction: introductions, family, food, restaurant, travel, directions, etc.

During the study, learners were not permitted to take notes or consult additional sources of information such as grammar books, dictionaries, or Polish speakers outside of the instruction time. Both groups received structured monolingual input and received no meta-linguistic information. The implicit instructed group received no form-related information and no explicit correction by the instructor. Those in the explicit group received form-related information about Polish grammatical structure. Form-based instruction focused on different morphological forms (e.g. Polish case and gender markings) and participants were presented with additional materials such as tables displaying inflectional paradigms (see figure 1). This divide was inspired by criticisms of the communicative methods that focus solely on situations, communication and/or speech acts with no focus on formal elements (Ellis 2005). The nature of the communicative approach and the need to provide learners with more information about the language than what they were receiving – like studies analysing focus on form (Doughty & Williams 1998) – fits in the explicit vs implicit learning and teaching debate (DeKeyser 2003; Hulstijn 2005; Godfroid 2016).

> Implicit instruction is characterized by an absence of rules or rule search instructions (Norris & Ortega 2001; Hulstijn, 2005); learners are exposed to relevant exemplars of a target structure in a meaning focused task in the hope that they will infer patterns or rules. In explicit treatments, learners are either provided with rules (deductive and metalinguistic; Norris & Ortega 2001) or are instructed to look for them in the input (explicit induction). (Rast 2008: 26)

In the VILLA project *implicit instruction* presents the to-be-learned linguistic structures within communicatively meaningful contexts without drawing attention to linguistic forms, rules or systematic relations. It is assumed that these forms, rules and relations can be abstracted subconsciously from the input. *Explicit instruction* refers to the practice of (deductively or inductively) teaching linguistic forms or structures and explicitly pointing out systematic relations to raise conscious awareness (see Hulstijn 2005; Andringa & Rebuschat 2015; Godfroid 2016; Pfenninger & Lendl 2017).

Although early comparative work on instruction relied heavily on explicit knowledge measures, which biased results in favor of explicit instruction (Norris & Ortega, 2000; Doughty & Long 2003), the recent development and validation of implicit knowledge measures (e.g. Ellis 2005; Erlam 2006; Godfroid et al. 2015) has paved the way for more balanced studies of implicit and explicit instruction. This has also been inspired by recent criticisms of the communicative approach to language teaching. Puren (1995) called earlier into question methods that focus solely on situations, communication and/or speech acts with no focus on formal elements. This concern triggered further theorizing about the nature of the communicative approach and the need to provide learners with more information about the language than what they were receiving, much like studies analysing focus on form (Doughty & Williams 1998; see also DeKeyser 2003 and Hulstijn 2005 concerning implicit and explicit learning), input modification (Long 1983; Faerch 1986), and input enhancement (Sharwood Smith 1993), as

well as the Processing Instruction model proposed by VanPatten (2004). Table 1 gives an elaborate overview of the instruction details in the implicit and the explicit instruction in the VILLA project.

Input type	IMPLICIT Teaching Condition	EXPLICIT Teaching condition
General characteristics of input	• 100% monolingual (without use of a bridge language such as native languages or English L2, no reference to L1s or other L2s) • Oral & communication based (no writing/taking notes nor reading) • No meta language nor direct explanation on meaning, usage or grammar • Each lesson (90 mins) supported by a ppt containing a sequence of slides with a) visual non-linguistic material (images, symbols, cliparts, maps) b) few key or target words, expressions or short sentences (except for Lesson1) c) short audio recordings (monologues or dialogues)	
Differences in terms of grammatical forms & other TL features treating	• none of the grammatical forms is highlighted in the written text; • the input is never structured according to grammatical or functional features nor paradigms; • no grouping of similar forms according to grammatical categories nor use patterns. • In general, grammatical, structural or functional information are part of communicative flow (no extraction) and appear without any saliency nor explicit indication, the teacher does not focus specifically on such aspects.	• target grammatical forms highlighted (various ways) in the written form; • the input is structured according to grammatical or functional features and paradigms (generally simplified in order to correspond to the basic level of learners – some tendencies only, avoiding exceptions or complex paradigms); • grouping of similar forms according to grammatical categories or to use patterns (on additional slides); • Extracting certain grammatical or usage structures. • In general, certain (target) grammatical, structural or functional information are salient in the communicative flow and the teacher does focus specifically on such aspects, following the sequence of slides.
Differences in terms of corrective feedback	No explicit corrective feedback – the teacher tries to avoid explicit corrective feedback and to provide as much as possible reformulations or clarification requests.	Explicit corrective feedback provided – as much as possible explicit corrections, recasts or solicitations.

Table 1 Overview of Implicit and Explicit Input in VILLA (extract from VILLA Field Manual 2022)

Note that even if both types of input comprise exactly the same linguistic content the PowerPoint sequence in the explicit instruction input is generally longer as

it contains additional slides that show (or "focus on") extracted grammar forms, types/categories or usage paradigms which, in the implicit instruction input, are in general introduced and elaborated only orally without any focusing or structuring. There was a list of words that the teacher was and was not allowed to use during the classes. These constraints were the same for all sessions in each country, so that each group of participants would be exposed to these words with the same frequency. In order to identify the whole input given, the oral input transcription of each session needs to be taken into account as well.

3. The present research

The current research forms part of the Dutch section of the *VILLA* project. We investigated the very first period of second language acquisition by Dutch learners of Polish. This was done by focusing on the acquisition of negation in Polish. After 7.5 hours of input (7,5 x 90 minutes), we exposed our Dutch subjects to a word order test. This test consisted of sentences with scrambled words, some of which contained a negator. The participants' task was to put these words in the right order. This test brought information on the types of processses the learners apply when they have to put the Polish words in the right order. It allowed us to examine the influence of L1 structures on the participants' performance: do they rely on the structures of their L1, or do they apply pragmatic strategies like information structure, After 12 hours of input, the participants had to take the same word order test again. This allowed us to investigate whether they had made progress in the intermediary period of 4.5 hours of input.

Furthermore, since we recorded and transcribed all input, we could compare the frequency of negated Polish sentences in the input with the performance of our participants on the two-word order tests. This allowed us to examine the influence of input on the acquisition process of negation.

The use of negation in the Dutch and Polish languages is very interesting for grammatical reasons. That is, the word order of Dutch negation is the exact opposite of the word order of Polish negation. This allows us to investigate whether the participants are applying the Dutch structures when putting the words in the right order, or whether, for example, they rely on general pragmatic scope strategies. The next section will be dedicated to the way in which negations are formed in Polish and Dutch.

3.1 Negation in Polish

In Polish, the negative adverb *nie* corresponds to the English *not*. In an indicative sentence, this adverb is placed before the verb or auxiliary. It is not placed before the verb but before a certain constituent only when it negates this sentence constituent. In other words, the negator *nie* is placed immediately in front of the constituent that it negates. Smoczyńska (1985: 607) provides the following three examples:

(1) *Jan* *NIE* *idzie* *do* *szkoły*
Jan neg go to school
'John doesn't go to school'

(2) *NIE* *Jan* *idzie* *do* *szkoły*
neg Jan go to school
'(It is) not John (who) goes to school (but)...'

(3) *Jan* *idzie* *NIE* *do* *szkoły*
Jan go neg to school
'It is not to school that John goes, but...'

3.2 Negation in Dutch

Standard Dutch uses a negative adverb *niet*, which corresponds to the English *not* and Polish *nie*. Contrary to Polish, this adverb is placed to the right of the verb or auxiliary in main clauses (when the entire sentence is negated, but see below). In subordinate clauses this is not always the case, but this goes beyond the scope of this study and will not be explained here. The use of Dutch *niet* is illustrated in the following example:

(4) Jan gaat niet naar school
Jan goes neg to school
'John doesn't go to school'

In principle, sentence (4) is ambiguous. It could simply be the negated form of 'John goes to school', but it could also be used in the sense of the Polish examples (2) and (3), in which a sentence constituent is negated. In that case, the constituent that has to be replaced by another in order to be true is marked by intonation. The Dutch equivalent of (2) would therefore be (stressed constituents are in capitals):

(5) JAN gaat niet naar school
John goes neg to school
'(It is) not John (who) goes to school, (but...)'

However, in Dutch it would also be more common to change the position of the negator to indicate that a constituent is negated, as in Polish, but then again intonation is used to indicate that the negated constituent has to be replaced by another. This is illustrated in example (6):

(6) Niet JAN gaat naar school, ...
Neg John goes to school
'(It is) not John (who) goes to school, (but...)'

It becomes clear that the place of the Dutch negator, after the verb, is exactly the opposite of the one for Polish, where *nie* in general precedes the verb. The only exceptions to these rules are sentences in which constituents are negated instead of the entire sentence, and subordinate clauses. The most important for the purpose of this study, however, is the placement of negators in simple main clauses. The sentences of the word order tests that were analyzed do not contain subordinate clauses or sentences of which a particular constituent has to be negated. This means that the constructions we will be comparing are Polish 'negator + verb' and Dutch 'verb + negator'. These structures will be labeled

respectively 'Neg-V' and 'V-Neg'. If our participants rely on their L1 when producing Polish negations, we will find V-Neg structures in their responses. However, if we find Neg-V structures, we suppose that they either have acquired the target structure already, or that they are applying general pragmatic strategies like scope.

3.3 Research questions

Investigating the influence of input presentation on the acquisition process of negation in a second language can be summarized in two research questions:

a) Do the implicit and explicit instruction conditions give different language learning success?
b) To what extent does input duration influence the performance when creating negated sentences in Polish, in other words, are results different after 7.5 hours of input and after 12 hours of input?

4. Methodology

4.1 Input transcription

Everything the teacher said was recorded by means of a wireless microphone. This input was subsequently transcribed by a native speaker of Polish. For this transcription the ELAN program was used, which is a professional tool for the creation of complex annotations on video and audio resources (for more information on this program, see Sloetjes & Wittenburg 2008). At the moment of writing, the Polish native speaker had not finished the transcriptions of the input of the second group, so we could only meticulously analyze the input to which the participants of the first group were exposed. The transcriptions allowed us to count all occurrences of *nie*, the occurrences of Neg-V and the occurrences of Neg-V in combination with the test verbs the participants had been exposed to. For every day of class an individual ELAN file was made. These files could be filtered for all occurrences of *nie* that were written down and classified according to their function – either serving as a negative response to an earlier uttered sentence, the negation of a verb (the negation we are looking for) or the negation of any other constituent.

4.2 Participants, teacher and classes

The participants were 40 native speakers of Dutch, divided in two groups. They had been selected on the basis of the following criteria:

a) Age. They had to be between 18 and 28 years old.
b) Study background. Students of linguistics, psychology, cognitive science or an academic language study were not allowed to participate.
c) Language background. Only native speakers of Dutch were allowed, people with knowledge of Polish, Russian or another Slavic language were not allowed to participate.

Data were also collected from a group of 15 native speakers of Polish, who had no knowledge of Dutch. They were 1st to 3rd year students in the faculties of Philosophy, Law or Canon Law at the KUL University in Lublin (Poland), aged 19 to 25 years old. This group was the control group for our word order test. The purpose of this control group was to collect data that could confirm our hypotheses about Polish native speakers' preferences with regard to word order in Polish.

Data collection for the present study was conducted at the Radboud University Nijmegen, in the Netherlands. Every period of class started at 9am and ended around 10.45am. This included a fifteen-minute break, so the classes lasted for 1 hour and a half every day. In class, the teacher used the communicative approach in order to simulate as closely as possible the language acquisition process of non-guided learners. The input of Polish was followed by language and psychometric tests.

4.3 Tests

The data were collected from a word order test, taken twice by the participants (the same test). The word order test was taken for the first time after a cumulative amount of seven and a half hours of input. Ideally, it should have been planned after even less input. Unfortunately, this was not possible, given the number of other tests the participants had to take in the beginning period of their language course. The participants of the implicit group did not receive any feedback on their performance on the first test. The second test was taken after five more hours of input. The word order test was also taken by the group of Polish native speakers. Before we could start to analyze the results of the first word order test, we had to decide whether all participants understood the test items. A translation task carried out by the participants showed that most of the participants had been able to grasp the meaning of the four items including negation; there were only two participants (two in each group) that had slightly wrong translations. Therefore, we can state that almost all of them knew what they were doing when they were putting the words in the right order and that their results can be used for analysis.

In the word order test there were four sentences that included the negator *nie*. They are reproduced below:

Context sentence:	*Tata lubi matematykę*, Daddy likes maths,
Words to put in order:	**lubi – literatury – ale – nie** likes – literature – but – not
Context sentence:	*Filip mieszka w berlinie*, Filip lives in Berlin,
Words to put in order:	**w – mieszka – nie – Julia – a – Berlinie** in – lives – not – Julia – and/but – Berlin
Context sentence:	Studentka zna francuski, The student knows French,

Words to put in order:	**zna – nie – ale – angielskiego** knows – not – but – English
Context sentence:	*Mama ma samochód,* Mum has a car,
Words to put in order:	**ma – samochodu – tata – a – nie** has – car – daddy – and/but – not

The participants' task was to read a sentence that provided context and then to put the scrambled words of the subsequent sentence in order. However, the number of items had to be limited in order to keep the participants motivated: the test already consisted of twenty items. The collected data reflect the learners' choice of word order in negated sentences and thus allowed us to analyze their preference relative to factors such as implicit/explicit input, L1 and individual strategies.

The control group answers confirm that the correct structure is *nie* followed by a verb in all sentences. This structure was labeled 'Neg-V' and coded as 'answer type 1'. The structure corresponding to the Dutch negation, *i.e.* the negator is preceded by the verb, was labeled 'V-Neg', and coded as 'answer type 2.

5. Results

We will first show the general results for both groups. Then placement of negations in the two-word order tests will be presented in 5.1 and in 5.2, describing respectively the differences of the implicit and then the explicit group.

5.1 Overall results for both groups

5.1.1 Overall results of the negative structures in the first word order test for both groups

In order to find out which strategies our 40 participants (2 groups of 20: implicit and explicit) applied to the sentences of the word order test, we need to know the position in which the negator was placed relatively to the verb. It turned out that 87.4% of the answers included the correct Neg-V structure which corresponds to the absolute number of 132 out of the 151 answers in test 1.

It also shows that the structure corresponding to the participants' L1, V-Neg, comes in second place with 12 answers (7.9%). Six of the remaining seven answers consist of the Neg-V or V-Neg structure, separated by another word. Three of these (2%) are close to the correct Neg-V structure (Neg-…-V), the other three (2%) seem to reflect the Dutch structure (V-…-Neg). The remaining response type (0.7%) contained *nie* in initial position.

A χ^2 test conducted on the responses of our 40 learners indicates that the distribution (132 Neg-V, 12 V-Neg, 3 V-…-Neg, 3 Neg…-V, 1 Neg-initial) differs from chance distribution (30,2 all positions) (χ^2 (4) = 431.4, $p < .01$). We conclude, therefore, that after 7.5 hours of input, the structure of Neg-V was statistically salient for both groups.

5.1.2 Overall results of negation in the second word order test, both groups

We now turn to the results of the second word order test, taken by all of our participants after 12 hours of input. Note that this was exactly the same word order test as the first one, so a learning effect is possible. These results show that participants opted even more for the Neg-V structure at test 2 than they did at test 1. See diagram 1 for a visualization. This diagram shows that in the second test, 94,9% of the answers (150 of the 158) contained the correct Neg-V structure. Eight of the given answers were different: 4 of these structures contained a word between Neg and V, yielding Neg-…-V. Three answers contained the Dutch structure of negation (V-Neg) and the remaining answer was Neg-initial.

Again, a χ^2 test conducted on the responses of all 40 learners indicates that the distribution of their answers is different from chance distribution (39,5 in all positions) (χ^2 (3) = 412.3, $p < .01$). We conclude that also after 12 hours of input, the Neg-V structure is statistically the most salient. When we compare these results to the results of the first word order test, we see an increase of 87.4% to 94.9% of correct answers. This is illustrated in diagram 1.

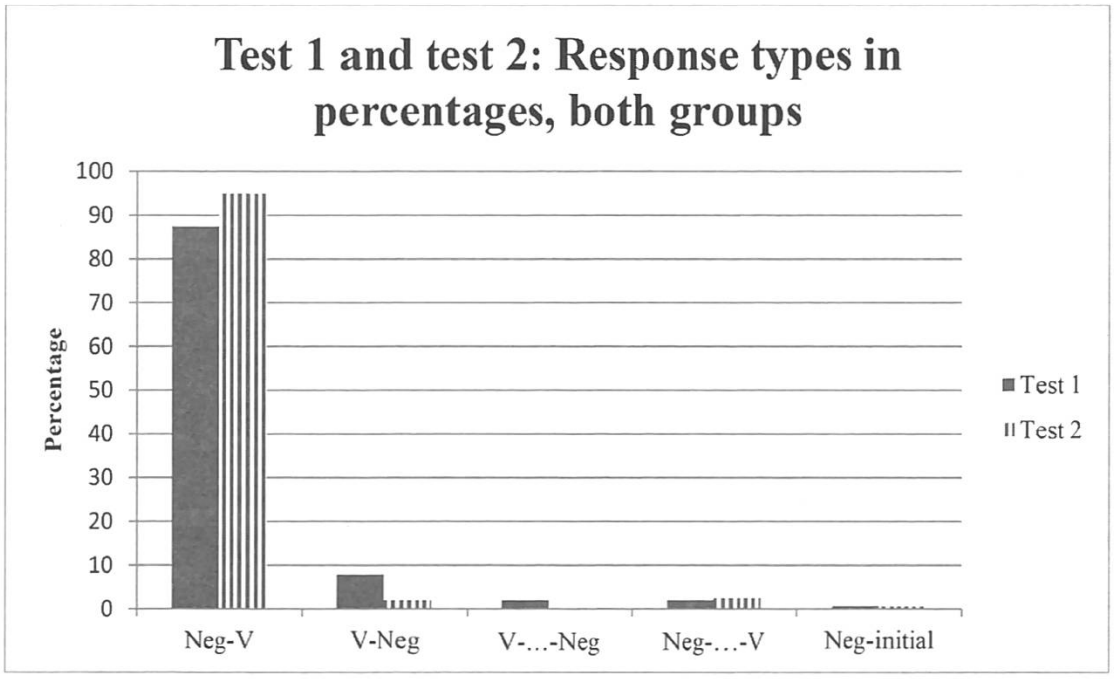


Diagram 1: Negation: Different response types after 7.5 and 12h of input, in percentages.

Diagram 1 shows that the percentage of the answers that included the Neg-V structure has increased, and that the use of the Dutch structure (V-Neg) has diminished to just above zero. The use of V-…-Neg shows a similar pattern: it represented 2% of the answers at test 1, but is not used any longer at test 2. Interestingly enough, the use of the other structure starting with Neg, Neg-…-V, has increased slightly from 2% at test 1 to 2,5% at test 2. At both tests there was one answer that contained the structure Neg-initial. These results show that

after 12 hours of input, almost no trace of the Dutch V-Neg structure is found any more. A paired-samples *t*-test conducted on the number of correct answers indicates that on average, participants performed significantly better at test 2 ($M = 3.75$, $SD = .54$) than at test 1 ($M = 3.3$, $SD = 1.07$), $t(39) = -3.49$, $p < .01$).

5.1.3 Frequency of Neg-V after 7.5 hours of input for the two groups

The results of the first word order test showed that after 7.5 hours of input, 25 of the 39 participants were able to produce the correct Neg-V structure consistently. The transcription of the recorded input reveals that, in the first five classes, the participants of group 1 (implicit instruction) had been exposed to an important number of *nie*s: 221.

148 of these were used in the structure we are looking for, *i.e.* followed by a verb. The other occurrences were either responses in the negative to a previous utterance (65) or they negated constituents other than the verb (7). In Group 2 (explicit instruction) the Polish teacher had used 153 times *nie.*

5.1.4 Frequency of Neg-V in input after 12 hours of input for the two groups

The second word order test was taken after class eight, so after 8 times 90 minutes (12 hours) of input. In the three days between the first and second test, the total amount of *nie* the participants of group 1 (implicitly instructed) were exposed to had risen to 307. For group 2, the number of occurrences reached 358, so these 4.5 hours of input delivered another 86 and 105 occurrences of *nie*.

5.1.5 Specific verbs used in combination with negation in the input

When taking a closer look at the verbs that the teacher used in combination with the 'Neg-Vs' our participants had been exposed to, we find out that the verb *być* 'to be' was prominent (84 of these combinations): *nie jest* (3rd person singular) or *nie sa* (3rd person plural). In fact, the verbs that figured in the word order test did not even come close to this number. Only 18 of the 148 Neg-Vs were combinations with these four verbs (*lubić* (to like), *mieszkać* (to live), *znać* (to know) and *mieć* (to have)). A few examples of occurrences are listed below, together with their translation.

Lubić (6 occurrences)
a. *Nie, on nie lubi kawy.*
'No, he does not like coffee'.
b. *Nie lubię koloru białego.*
'I do not like the colour white'.

Mieszkać (7 occurrences)
a. [...] *ale nie* ***mieszka*** *w Chorwacji.*
'... but he/she does not live in Croatia'.
b. *Ona nie* ***mieszka*** *w Chorwacji.*
'She does not live in Croatia'.

Znać (3 occurrences)
a. *Ja nie* ***znam*** *języka holenderskiego.*
'I do not know the Dutch language'.

b. *[...] ale nie **zna** języka polskiego.*
'... but he/she does not know the Polish language'.

Mieć (2 occurrences)
a. *I tu jest komplet a tutaj informacji nie **ma**, jest tam.*
'And here is another set but here is no information, it is there'.
b. *Nie **ma** karty.*
He/she does not have cards.

A Pearson's correlation revealed that for group 1 there was no significant relationship between the number of times a particular verb appeared in the input and participants' performance on the item containing this particular verb, $r(4) = .81$, p (one-tailed) = .10.

Also, for group 2 there was no significant relationship between the number of times a particular verb appeared in the input and participants' performance on the item containing this particular verb, $r(4) = -.78$, p (one-tailed) = .11.

5.2 Results of the main analysis; the influence of the type of instruction

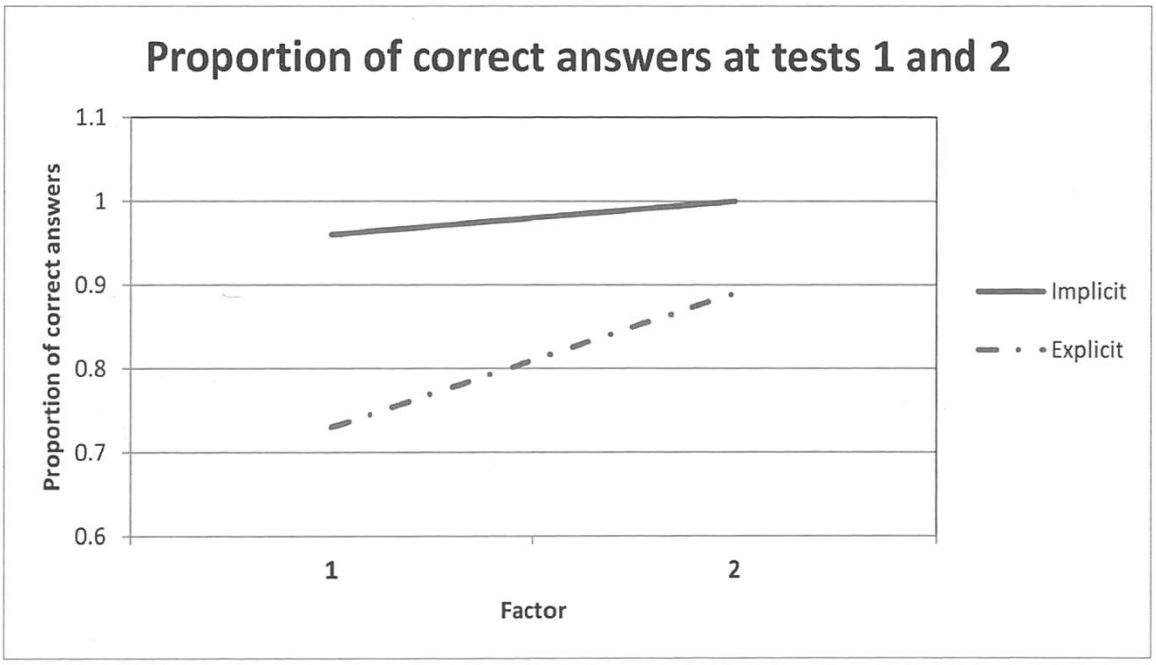
We conducted an ANCOVA multivariate analysis on the proportion of correct answers, with 'test' as a within-subject-factor and 'type of instruction' as a between-subject-factor. The factor 'test' had two levels, namely the first word order test (level 1) and the second word order test (level 2). The descriptive statistics are reported in table 2:

Test	Type of instruction	Mean proportion of correct answers	Std. Deviation	N
1	1 Implicit	,96	,13	17
	2 Explicit	,73	,30	23
	Total	,83	,27	40
2	1 Implicit	1	,00	17
	2 Explicit	,89	,17	23
	Total	,94	,14	40

Table 2: Means and standard deviations of the proportion of correct answers by our explicit and implicit instructed participants

Before the actual ANCOVA was conducted, we tested if the assumptions of this kind of analysis were met. This proved to be only partially the case. Levene's test indicated that the assumption of homogeneity of variance was violated for test 1 and test 2. This can partly be explained by the fact that our implicit participants all scored almost 100% correct at test 1, and unanimously scored 100% at test 2, which means that there was zero variance in our implicit participants' performance at test 2, see Table 1.

For our main analysis, we looked at Pillai's Trace. We found a significant main effect of the factor 'test': $F(2, 35) = 3.89$, $p = .03$, $\eta_p^2 = .18$. We found no significant main effect of 'type of instruction' but we found a significant interaction effect of factor test with 'type of instruction': $F(2, 35) = 3.95$, $p = .03$, $\eta_p^2 = .18$. These results will be illustrated below, by means of graph 1.



Graph 1: Proportion of correct answers of implicit and explicit participants at tests 1 and 2.

The first observation that can be deduced from graph 1 is the significant main effect of factor 'test' (test 1 or test 2). We see a clear improvement in performance between test 1 and test 2.
Graph 1 also shows the interaction effect of factor test with type of instruction. That is, it shows that the difference between implicit and explicit performance decreased at the second test. It seems as if our explicit instructed participants were catching up with the implicit instructed participants. However, it should not be forgotten that we are dealing with a ceiling effect: our implicit instructed participants already started with a 96% correct score in test one, so there was not much room for additional improvement at the time they were tested for the second time. When being tested for the second time, they all reached the maximum score. However, explicit participants started with a score of 73%, so there was more room for improvement and this is what actually occurred.

6. Conclusion

In short, we can summarize the results as follows:

a) Implicit or explicit presentation of input has no influence on learners' success.

b) Input influences the general performance of participants, but not specific verbs used in the inputs.

The main aim of this study was to investigate the influence of the type of instruction on the second language acquisition process. More precisely, we wanted to find out whether there were visible influences between the implicit instruction group (as representative for an implicit way of teaching) and the explicit instructtion group (based on more explicit attention to form in the input material) when learning negation in Polish. The answer is clear: We hardly found any influence of the implicit versus explicit presentation of the input.

Our overall results concerning the influence of input is firstly that our participants performed better on the word order test after 12 hours of input than after 7.5 hours of input. In other words, we found a general effect linked to the amount of input our participants had been exposed to.

It could be the case that 7.5 hours of input was enough for our participants to acquire the target language structure for negation. It could, however, also be the case that these learners have not exactly learned the correct structure, but that they applied scope: put the word '*nie*' immediately in front of that which it negates as in Neg-V. In the case of our word order test items, this was the verb. This leads to the correct Polish structure for negation.

However, there was no significant improvement in performance on items containing words our participants hear more often than others. It seems that there has been an influence of input on the general performance of our participants, but that this is not visible in the specific verbs used in the input. The transcription of the input allowed us to look for specific occurrences of *nie* followed by the four verbs that were tested in the word order quiz: *lubić*, *mieszkać*, *znać* and *mieć*. When looking for a relationship between the frequency of these verbs in the input and our participants' performance on the items including these verbs, it turned out that there was no significant correlation.

BIBLIOGRAPHY

Andringa, S. & Rebuschat, P. (2015). New directions in the study of implicit and explicit learning. An introduction. *Studies in Second Language Acquisition*, *37*, 185–196.

Barsch, J.R. (1996). *Barsch Learning Style Inventory*. Novato, CA: Academic Therapy Publication.

DeKeyser, R. M. (2003). Implicit and explicit learning. In C. J. Doughty & M. H. Long (eds.) *The Handbook of Second Language Acquisition* (pp. 313–348). Oxford: Blackwell.

Dimroth, C., Rast, R., Starren, M., & Watorek, M. (2013). Methods for studying the acquisition of a new language under controlled input conditions: The VILLA project. *Eurosla Yearbook*, *13*, 109-138.

Ellis, N. (2005). At the interface: Dynamic interactions of explicit and implicit language knowledge. *Studies in Second Language Acquisition*, *27*, 305–352.

Fedzechkina, M., Newport, E. L., & Jaeger, T. F. (2016). Miniature artificial language learning as a complement to typological data. *The usage-based study of language learning and multilingualism*, 211-232. *(no location available)*

Flege, J. (2009). Give input a chance! In T. Piske & M. Young-Scholten (eds.), *Input Matters in SLA* (pp. 175-190). Bristol: Multilingual Matters.

Godfroid, A. (2016). The effects of implicit instruction on implicit and explicit knowledge development. *Studies in Second Language Acquisition*, *38*, 177–215.

Gullberg, M., Roberts, L., Dimroth, C. et al. (2010). Adult language learning after minimal exposure to an unknown natural language. *Language Learning*, *60*, 5-24.

Hulstijn, J. (2005). Theoretical and empirical issues in the study of implicit and explicit second-language learning. *Studies in Second Language Acquisition*, *27*, 129–140.

Karmiloff-Smith, A. (1986). From meta-processes to conscious access: Evidence from children's metalinguistic and repair data. *Cognition*, *23*, 95–147.

Norris, J. & Ortega, L. (2000). Effectiveness of L2 instruction: A research synthesis and quantitative meta-analysis. *Language Learning*, *50*, 417–528.

Pagonis, G. (2015). Zur Eignung von expliziter Formfokussierung in der schulischen DaZ-Vermittlung. In H. Klages & G. Pagonis (eds.), *Linguistisch fundierte Sprachförderung und Sprachdidaktik: Grundlagen, Konzepte, Desiderate* (pp. 141–172). Berlin: Mouton de Gruyter.

Paradis, M. (2009). *Declarative and procedural determinants of second languages*. Amsterdam: John Benjamins.

Pfenninger, S. & Lendl, J. (2017). Transitional woes: On the impact of L2 input continuity from primary to secondary school. *Studies in Second Language Learning and Teaching*, *7*, 443–470.

Rast, R. (2008). Foreign Language Input: Initial Processing. Clevedon: Multilingual Matters.

Smith, M. S. (1993). Input enhancement in instructed SLA: Theoretical bases. *Studies in second language acquisition*, *15(2)*, 165-179.

Smoczyńska, M. (1985). The acquisition of Polish. In D. I. Slobin (ed.), *The crosslinguistic study of language acquisition, Vol. 1. The data; Vol. 2. Theoretical issues* (pp. 595–686). New York: Psychology Press.

VanPatten, B. (2004). Input processing in second language acquisition. In B. VanPatten (ed.), *Processing instruction: Theory, research, and commentary* (pp. 1-31). Mahwah, NJ/London: Laurence Erlbaum Associates.

Winkler, S. (2010). 'Learner varieties and language teaching curricula. An intervention study on the acquisition of German (S)VO clause structure by native Italian speakers'. Project meeting The Structure of Learner Varieties, Max-Planck-Institute for Psycholinguistics, Nijmegen, March, available online.