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Investigating Dutch teachers' beliefs on working with linguistic metaconcepts to improve students' L1 grammatical understanding

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ABSTRACT

L1 grammar teaching worldwide often takes the form of traditional grammar teaching with decontextualized parsing exercises and rules of thumb. Some researchers have proposed enriching such forms of grammar teaching by relating traditional grammatical concepts to underlying metaconcepts from linguistic theory. The merits of such an approach have become apparent in recent intervention studies, but the question remains how teachers perceive such forms of grammar teaching, which is of particular importance for curriculum development. The present study investigated Dutch teachers' beliefs in focus groups and a national survey ($N = 127$). It is found that Dutch language teachers see important benefits of a metaconceptual approach to grammar teaching, particularly as a means to improve students' grammatical understanding. However, results also indicate that while teachers may see clear pedagogical and conceptual advantages of working based on underlying metaconcepts, their own teaching practice appears to be much more traditional. This discrepancy is explained by assuming that contextual factors have a restraining effect on what teachers can or want to do in reality. Once such contextual factors no longer play a part, teachers' views tend to be much more geared towards a metaconceptual approach. The paper concludes with some implications for future research.

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Introduction

Debates about the position of grammar in L1 curricula have been recurrent in recent decades (Locke 2010; Rättä, Awramiuk, and Fontich 2019). Even though grammar has been heavily debated, it has re-positioned itself on the pedagogical agenda worldwide, especially in Anglophone countries (Myhill 2018). In part, L1 grammar has made a strong comeback in curricula as a result of high quality empirical research indicating positive effects of contextualized grammar teaching on writing development (Fontich

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and Camps 2014; Jones, Myhill, and Bailey 2013; Myhill et al. 2012). By contrast, much L1 grammar teaching is not contextualized at all, but still consists of decontextualized parsing exercises students have to deal with (Van Rijt, De Swart, and Coppén 2019), not rarely by applying shallow rules of thumb to arrive at the correct parsing of a sentence (cf. Berry 2015). While such traditional grammar teaching seems to have no positive impact on students' writing (Graham and Perin 2007), a lot of research has shown the merits of more contextualized approaches (more specifically, approaches related to 'systemic functional linguistics' or SFL – cf. Halliday and Matthiessen 2004). Less research has focused on learning grammar *per se*, meant to increase students' language awareness or improve their ability to think about and reflect on the grammatical structure, meaning and context of language as an object of study Van Rijt et al. 2019b; Boivin et al. 2018; Fontich and García-Folgado 2018; Ribas, Fontich, and Guasch 2014). Whereas improving students' language awareness or linguistic reasoning skills may enhance literacy development when properly integrated with writing education (Van Rijt, De Swart, and Coppén 2019), stimulating these aspects can also be considered a valuable goal in itself (Hulshof 2013; Myhill 2016, 39; Ribas, Fontich, and Guasch 2014). From a curriculum developmental perspective, knowing how language works can be considered 'powerful knowledge' (Janssen, Hulshof, and Van Veen 2019; Young 2009; Young 2013): systematic, disciplinary and valuable knowledge, that students may use to better understand their linguistic ability and language use, and that may be utilized to improve their language proficiency. The notion of powerful knowledge is, however, underdeveloped for language education in general and for grammar learning specifically (Janssen, Hulshof, and Van Veen 2019).

Whatever the goal for grammar teaching (i.e., to improve writing or to gain an understanding of how language works), questions about the relevant metalinguistic content remain very topical. This paper investigates teachers' beliefs on teaching grammar based on underlying linguistic metaconcepts, taking the Dutch context as its frame of reference. We will first briefly outline the position of grammar in the Dutch curriculum before getting into more detail about metaconceptual approaches to grammar learning and instruction.

Dutch context

Contrary to other educational jurisdictions, such as the United Kingdom (Hudson and Walmsley 2005) or the United States (Kolln and Hancock 2005), grammar has never been marginalized in the Netherlands. In fact, quite the opposite holds: according to Van Gelderen (2010) it has always been 'alive and kicking'. This may be somewhat surprising because of the global emergence of the communicative paradigm in language teaching in the early 1970s, in which communication and language proficiency became more centralized goals as opposed to understanding the language system, which had center stage in the period before (Bonset and Rijlaarsdam 2004; Hulshof, Kwakernaak, and Wilhelm 2015; Van de Ven 1996). This turn towards a communicative paradigm was reinforced when in 1978, a committee advising about the development of the mothertongue curriculum (ACLO-M), suggested that traditional grammar should be banned completely in primary education, and that this trend should be followed in secondary education (ACLO-M 1978, 17). In doing so, teaching grammatical terminology should be limited severely. This

position generated fierce discussions among teachers, educators and curriculum developers, because while the ideology of grammar teaching may have been geared towards communication, in practice, a lot of teachers still preferred traditional grammar teaching, in which students had to analyze isolated sentences and label parts of speech (Bonset and Hoogeveen 2010). As a result, traditional grammar teaching was not banned entirely (albeit that its role seems to have diminished). Currently, an instrumental or communicative perspective still dominates educational ideology. A national document underlying the Dutch language curriculum (Meijerink 2009) emphasizes an instrumental perspective towards grammatical knowledge, identifying a limited body of grammatical knowledge that may be beneficial for writing development. And while the document does recognize that non-instrumental perspectives towards grammar may also be valuable, it does not provide any guidelines for it. It is important to note that grammar is typically only taught in the lower classes of secondary education. In most cases, there is no follow-up of these grammar lessons in upper-secondary school classes, neither in the form of grammar nor in the form of linguistics, although schools are allowed to incorporate such content into their exam programme. This is however not very common (Meestringa and Ravesloot 2013).

Currently, a large-scale curriculum change is ongoing (Curriculum.nu 2019), the result of which is not yet clear. It seems however, that based on provisional documents and input from other involved parties, such as Dutch universities (Meesterschapsteams 2018) attempts are being made to acknowledge non-instrumental perspectives towards grammatical and linguistic knowledge as well, alongside the instrumental perspectives.

In the past, there have been some proposals for alternative forms of grammar teaching, such as more semantically oriented approaches to grammar (e.g. Van Calcar 1983; van Rijt 2013), approaches based on generative grammar (Van Dort-Slijper, Klooster, and Luif 1975; Van Disseldorp 2012) or on sentence combining (Schuurs 1990), but these have never become mainstream, probably because they are too different from the commonly used methods (Coppen et al. 2019).

As previously mentioned, there are strong indications that currently, traditional grammar teaching is still dominant in the Netherlands (Tol-Verkuyl 2001; Bonset and Hoogeveen 2010; Van Gelderen 2010; Van Rijt. et al. 2019c). This type of grammar teaching can essentially be traced back to Den Hertog's nineteenth century school grammar (Den Hertog 1892 – see Hulshof 1985), and has not been modified significantly since that time (Coppen et al. 2019). It has however been criticized for its focus on rules of thumb rather than on understanding (Coppen 2009 – see also Berry (2015)), and for its inability to incorporate relevant insights derived from modern linguistics (Van Rijt and Coppen 2017). In order to do justice to non-instrumental perspectives towards grammar teaching, it seems that more research is needed to gain an understanding of alternatives to traditional grammar teaching. A recent strand of research has looked into possibilities for enriching traditional school grammar with linguistic metaconcepts, which will be the focus of the current paper.

Grammatical understanding based on underlying linguistic metaconcepts

Grammatical understanding can be defined as 'any grammatically informed knowledge about language' (Macken-Horarik, Love, and Unsworth 2011, 11). Achieving grammatical understanding, or metalinguistic understanding more broadly, can be difficult for three reasons (Myhill 2000). Firstly, learners can bring previously acquired

misconceptions to the table, often created by teachers and text books; secondly, specific grammatical characteristics can be problematic for learners, and thirdly, there can be cognitive difficulties concerning the inherent conceptual difficulty of grammar. While there is not one solution to these problems, they can potentially be reduced by enriching grammatical content and pedagogy (Fontich 2014).

Some recent research focusing on problems related to grammatical understanding has turned to linguistics in order to improve traditional school grammar or language education more broadly (Giovanelli and Clayton 2016; Hudson 2004). The central idea is that linguistic theory has generated relevant content and insights that can be used to improve grammar education. For example, in L2 grammar teaching the potential benefits of cognitive linguistics approaches are being explored more and more (Holme 2012; Verspoor 2008), which can also be said for L1 grammar teaching (Giovanelli 2015a; Trousdale 2016). A different approach, which will be central in the current paper, explores the value of ‘theory-neutral’ linguistic concepts, i.e., linguistic concepts that are considered important in all linguistic schools of thought, reflecting a consensus among linguistic experts of various backgrounds (Van Rijt and Coppen 2017; Van Rijt, De Swart, and Coppen 2019). In this approach, a distinction is being made between linguistic concepts and linguistic metaconcepts. The latter are concepts with an overarching value, which can be used to gain a deeper understanding of several related concepts from traditional grammar. For example, in traditional grammar teaching, students generally have no idea why certain sentences contain direct objects and indirect objects, whereas other sentences do not (ibid, 2019). Understanding that objects are licensed by the main verb of a sentence by means of the linguistic metaconcept of ‘valency’ (cf. Perini 2015) could address this lack of insight (see Van Rijt, Wijnands, and Coppen 2020, for a more detailed explanation). In this example, understanding the underlying metaconcept of valency serves as a stepping stone for a deeper understanding of traditional concepts, such as (in)direct objects, and their role in sentences. When used this way, linguistic metaconcepts can mediate students’ understanding of more traditional concepts. It has been shown that relating traditional grammatical concepts to underlying linguistic metaconcepts could benefit students’ grammatical understanding, language awareness and linguistic reasoning ability (Van Rijt, Wijnands, and Coppen 2020; Van Rijt et al. 2019b).

A similar role of metaconcepts has also been established in research on teaching historical thinking (see Van Drie and Van Boxtel 2008). The clear advantage of working based on underlying linguistic metaconcepts, is that such metaconcepts have great universal value, meaning that many of the metaconcepts from Van Rijt and Coppen (2017) can be used to describe almost any language. Findings from the present study could therefore also be of interest to a broader educational audience.

For grammar education, two recent intervention studies have demonstrated the merits of a metaconceptual approach. The first was an intervention study showing that first-year university students’ grammatical understanding and reasoning ability significantly improved ($d = 0.62$) after participating in an intervention in which metaconcepts were related to traditional concepts (Van Rijt et al. 2019b). Not only did these students’ ability to tackle unknown grammatical problems increase, so did the amount of metaconcepts they turned to when tackling these grammatical problems ($d = 0.70$). In the same study, it was found that using both explicit linguistic metaconcepts and explicit concepts from traditional grammar are good predictors of linguistic reasoning quality, especially when

combined (Van Rijt et al. 2019b). An important added benefit of the intervention described in The Van Rijt et al. (2019b) is that students' tendency to tackle grammatical problems using rules of thumb diminished significantly ($d = 0.42$). This is a welcome side effect, since traditional grammar teaching is often criticised for its application of shallow rules of thumb as a dominant reasoning strategy (Coppén 2009; Van Rijt and Coppén 2017; Berry 2015).

A second intervention study (Van Rijt, Wijnands, and Coppén 2020) found a similarly positive effect for secondary school students from pre-university education (mean age 14.0 years), Cohen's $d = 0.46$. On average, students seemed to benefit from the approach, if the relationship between metaconcepts and concepts was embedded into a sociocultural context, in which reflection and exploratory talk (Mercer 2013) were employed as pedagogical tools to facilitate grammatical understanding. In particular, reflection and exploratory talk were aimed at dealing with grammatical uncertainties (Coppén 2009).

Another important design principle of the intervention was that it introduced metaconcepts to students inductively at first, in order to activate students' own intuitions about an underlying metaconcept (Coppén 2009; Van Rijt, Wijnands, and Coppén 2020; Haight, Herron, and Cole 2007). Inductive instructions are designed in a way that enables the learner to discover a generalization based on exemplars. In the next stage, a more deductive approach was followed, in which the linguistic metaconcepts of *valency* ('verbs serve out roles based on their meaning'), *predication* ('elements can be linked to a 'to do' or a 'to be' meaning'), *modification* ('some parts of speech are very loosely related to the verb') and *complementation* ('some parts of speech are very closely related to the verb') were explicitly introduced and related to traditional concepts. For more information about this intervention and its underpinning design principles, see Van Rijt, Wijnands, and Coppén (2020).

Teachers' beliefs on working with linguistic metaconcepts

In order to effectively implement such an enriched traditional grammar education, it is vital to understand teachers' beliefs on the subject matter. *Teacher beliefs* can be defined as 'what teachers know, think and believe' (Borg 2003). The effect of teachers' beliefs on educational practice is being shown by many studies, especially in the area of grammatical learning and instruction (Barnard and Scampton 2008; Borg 2003; Camps and Fontich 2019; Watson 2015a; 2015b). In particular, it is well known that teachers prefer to adopt teaching styles that resemble styles that they have been exposed to as learners (Phipps and Borg 2009), even in the face of more promising pedagogical alternatives, such as SFL (Swierzbina and Reimer 2019). In part, teacher beliefs are therefore strongly contributing to practices of traditional and decontextualized parsing exercises that can be observed all over the world (Van Rijt et al. 2019b).

It is important to note that not all teacher beliefs have an equally powerful impact upon teachers' practice. Phipps and Borg (2009) distinguish between core beliefs and peripheral beliefs. The former are believed to be much more stable, and exert a much stronger impact on teachers' daily practice than the latter. According to Phipps and Borg (2009), core beliefs are 'experientially ingrained, while peripheral beliefs, though theoretically embraced, will not be held with the same level of conviction' (p. 388). Therefore, to implement an alternative pedagogical approach to grammar teaching, it is important to investigate both core and peripheral beliefs of teachers.

Internationally it is known that language teachers generally lack a solid grammatical or linguistic knowledge (Alderson and Hudson 2013; Macken-Horarik, Love, and Horarik 2018; Sangster, Anderson, and O'Hara 2013), a fact which can even lead to feelings of anxiety when teaching grammar (Giovannelli 2015b). Van Rijt, Wijnands, and Coppen (2019c) investigated to what extent Dutch secondary school teachers were familiar with 26 metaconcepts that linguists considered essential in linguistic theory (cf. Van Rijt and Coppen 2017). Teachers only indicated being fairly familiar with a handful of (meta) concepts, mostly those concepts that are clearly recognisable within traditional grammar, such as *syntactic functions* or *word order*. Other potentially useful metaconcepts playing a key role in modern linguistic theory (cf. Van Rijt and Coppen 2017), such as *valency*, *predication* or *recursion* were much less known. However, in spite of their general lack of knowledge, teachers were mostly dissatisfied with their traditional practice, and they were very open to more metaconceptually grounded and reflective grammar teaching (Van Rijt, Wijnands, and Coppen 2019c, 19). The Van Rijt, Wijnands, and Coppen (2019c) study took into account the views of 119 secondary school teachers of Dutch language and literature, and analyzed the two most frequently used text books for Dutch L1 classrooms, likely to reflect teachers' beliefs (Van Rijt, Wijnands, and Coppen 2019c, 7). The text book analysis revealed that most grammar exercises could be characterized as being traditional, in the sense that they made no use of relevant linguistic (meta)concepts. Additionally, the vast majority of exercises (99%) were decontextualized parsing exercises, only targeting lower order thinking processes (ibid., p. 16). The pedagogical arrangement could therefore also be characterized as being traditional. Several teachers from the study indicated that they felt hindered by the traditional text books when teaching grammar.

The current study aimed to gain a deeper understanding of Dutch teachers' beliefs, in part by adopting a more rigorous (sampling) methodology, that will allow for more generalizations. The study revolves around the following research question: *What are secondary school Dutch language teachers' beliefs about teaching L1 grammar based on linguistic metaconcepts?* This question was subdivided into four smaller questions:

- (1) What are Dutch teachers' general beliefs about L1 grammar education?
- (2) To what extent do teachers favour metaconceptual approaches compared to more traditional approaches or vice versa, and how does this relate to their core beliefs?
- (3) What strengths and weaknesses do teachers identify in metaconceptual approaches compared to traditional approaches?
- (4) To what extent do student variables influence the teachers' beliefs?

We aimed to answer these questions by first interviewing teachers in two focus groups. The results from these focus groups were then further substantiated in a national survey.

Method

Focus group interviews

Before developing a national survey, we interviewed teachers about their beliefs in two focus group interviews. The first group of teachers ($N = 5$) participated in our previous study (Van Rijt et al. 2020), and had therefore gained some experience in teaching based on

linguistic metaconcepts. They were interviewed about their experiences with the intervention and were invited to reflect on its underpinning design principles. To avoid bias and to increase generalizability, a second focus group interview was held with four more teachers, who had not participated in the intervention. These teachers volunteered to take part in the focus group. It was decided to take no additional focus groups into account because an initial analysis of the data had indicated a strong level of saturation, i.e., there were strong similarities between what was being said in both focus groups.

Focus group interviews are a particularly useful method to establish the collective views of the participating group, rather than the experience of any one individual (Cohen, Manion, and Morrison 2011, 436; Krueger and Casey 2015). A common caveat in conducting focus group interviews is that certain members of the group may be denied a voice, or that participants can feel less secure, feeling the obligation to give socially desirable answers (*ibid.*). Indeed, asking participants about their beliefs directly is a problematic strategy, because participants may not possess the metalanguage with which to discuss them, or they could be unwilling to articulate them in the group (Kagan 1992, 66).

In order to avoid such problems, we split the interview into two parts. In the first part, we aimed to zoom in on teachers' beliefs regarding grammar teaching, especially in relation to each of the design principles from Van Rijt, Wijnands, and Coppens (2020). To facilitate this, we designed six vignettes of fictional teachers, presented to the participants in pairs. (See Appendix 1 for an example). Each of these pairs dealt with one or two of the design principles. Using these vignettes, we hoped that participants would feel more free to talk about their grammar beliefs, since they revolved around fictional teachers. Using such vignettes has been successfully used in several studies before and it is more likely that this method unveils the beliefs that teachers draw on in practice, rather than their theoretical beliefs (Borg 2006). We developed a semi-structured interview protocol around these vignettes, in which participants were asked to reflect on the role of linguistic metaconcepts, how this relates to the level of their students and their own preferences in grammar teaching.

In the second part of the focus group interview, the intervention's design principles were examined, with a particular focus on the role of the teacher. In the first focus group, the focus was on teachers' own role in participating in the intervention; in the second focus group, the emphasis was placed more on teachers' beliefs regarding how best to act in case they would have to teach based on metaconcepts. Teachers were encouraged to express their honest opinions. The focus groups each lasted about 100 minutes (50 minutes for each of the two parts). The interviews were recorded with participants' permission, and later analyzed qualitatively and inductively, following the constant comparison method (Corbin and Strauss 2015). In this process, we adhered to Wellington's (2000) four stages of qualitative analysis: *immersion*, *reflection*, *taking apart* and *synthesizing*. The first and third author of the present paper first engaged in open coding together, emerging themselves in the data to develop a sense of the themes that could be uncovered from the interviews. Next, both coders independently coded sections of the data, repeatedly coming back together to discuss whether they were on the same page. Next, the open codes were synthesized and related to other codes, resulting in several axial codes, which we will focus upon in this paper. In their coding, the authors were particularly thoughtful of relevant aspects from the interview protocol, in particular concerning perceived strengths or possibilities of metaconceptual approaches on the one hand, and perceived weaknesses or

threats in the practical application of the intervention or its design principles on the other hand. Throughout the coding process, any disagreements were resolved through discussion. The outcome of the inductive coding is presented in Table 3 (overview of axial codes). In the presentation of our data, we will focus on axial codes that pertain to strengths and weaknesses of metaconceptual approaches and only touch upon related themes briefly.

The consensus from the focus groups was then quantitatively explored in a national survey.

Participants

In Focus Group 1 (F1), five teachers of Dutch Language and Literature from different secondary schools in the Netherlands participated. One of them was male, four of them were female. Their teaching experience in Dutch Language and Literature varied, with two of them being novices (0–5 years of experience), one of them being experienced (6–15 years of experience) and two of them being highly experienced (>15 years of experience). On average, they had 15.6 years of teaching experience ($SD = 13.62$). Teachers also differed in terms of their qualifications. Three of the teachers held a master's degree, whereas two others held a bachelor's degree. In Focus Group 2 (F2) four female teachers with similar teaching experience and qualifications participated: one of them was a novice, one of them was experienced and two of them were highly experienced. On average, they had 17.5 years of teaching experience ($SD = 11.32$). Two of the teachers held master's degrees; two others held bachelor's degrees. Two of the participants of the second focus group interview indicated being uncertain about their feelings towards the value of grammar.

National survey

Sampling strategy & procedures

Based on the input from the focus groups, and guided by our research questions, we developed a survey using Qualtrics. The survey could be taken online and took about

Table 1. Participants completing the survey ($N = 127$).

Participant characteristics ($N = 127$)		N (%)
Gender	Male*	28 (22.05)
	Female	99 (77.95)
Teaching experience	Novice (0–5 years exp.)	41 (32.3)
	Experienced (6–15 years exp.)	40 (31.5)
	Highly experienced (>15 years exp.)	46 (36.2)
Qualifications**	Bachelor degree	63 (49.61)
	Master degree	55 (43.31)
	Other	9 (7.09)
Educational type	Lower vocational education (vmbo)	28 (22.0)
	Higher vocational and pre-university education (havo/vwo)	99 (78.0)
Dutch provinces represented (/12)	NA	9 (75.0)

* This might seem that male teachers are very underrepresented in this survey, but in 2016, only 31% of all Dutch Language teachers in secondary education was male (see Rijksoverheid 2016). The decline of the number of male Dutch teachers is expected to drop even more. Therefore, the man-women division from this survey seems to do some justice to reality.

** Teachers with a master's degree (MEd programme) are allowed to teach in all classes of secondary education; teachers with a bachelor's degree (BEd programme) are only qualified to teach in the lower classes of secondary education.

20–25 minutes to complete. The survey was pretested by bachelor students of Dutch Language and Literature from a university of applied sciences ($n = 25$). Their remarks led to improvements in the questionnaire.

To make the survey as representative as possible, we applied a systematic sampling strategy (cf. Cohen, Manion, and Morrison 2011, 154) based on a complete list of secondary schools made available by the Dutch Ministry of Education (https://duo.nl/open_onderwijsdata/databestanden/vo/adressen/index.jsp), which included 653 schools with a total of 968.172 students. The list was consulted in May 2019. In the Netherlands, there is no database available in which teachers are listed. Therefore, teachers could not be contacted directly, but they had to be contacted via their schools. This also meant that responders could not be compared to non-responders, as is common in national surveys that are undertaken based on such databases (e.g., Kihara, Graham, and Hawken 2009; Gillespie et al. 2013).

According to Cohen, Manion, and Morrison (2011, 147), at least 600 cases are needed to achieve a 95% confidence level with a 4% confidence interval if the total population exceeds 1 million. This amounts to 0.06% of the population. Given that it is unknown how many Dutch Language and Literature teachers there are in secondary schools, we decided to approach 0.06% of the total number of schools, which is likely to reflect the number of teachers. This would amount to at least 40 (39.18). We therefore pulled three samples of 40 schools each: one main sample and two back-up samples. In our selection of schools, we took into account its population of students, meaning that larger schools would have a higher chance of ending up in the samples than schools with fewer students. This way, it became more likely that we could reach more teachers. In doing this, we followed standard procedures for systematic sampling (Cohen et al., p.153).

In the next phase, we contacted the schools from our primary sample. In some cases, this meant sending an mail to a general email address, requesting contact information of the Dutch Language and Literature head of department (HoD). In case we received the HoD's contact information, we informed them about our study and requested them to forward this information to their teachers, prompting them to take the survey. In accordance with the tailored design method (cf. Dillman 2000), HoD's received two reminders.

In other cases, school websites would host a list of the Dutch teachers in their employment, in which case we contacted teachers directly. Teachers who were contacted directly also received two reminders. If a school refused to participate, a school from the second sample was approached, and, if necessary, the third. Because the number of participants remained fairly low after four weeks, we contacted the entire second sample as well, alongside our primary sample. Of the 80 schools that were ultimately contacted, 46 schools participated with at least one teacher (57.5% response rate at school level). A survey return rate of 50% is generally considered acceptable (Weisberg, Krosnick, and Bowen 1989). Teachers were told that they could win one of ten gift coupons of €25,- for their participation, and they gave active consent for the data to be used anonymously.

Participants

Since not all participating teachers finished the survey, we split the participant section in two parts.

Participants in first part of the survey

Table 1 lists the main characteristics of the participating teachers.

Participants completing the survey

Of the 127 initial participants, 78 participants (61.42%) fully completed the survey. Their characteristics are listed in Table 2.

Outline of the survey

The survey was divided into four main parts. In the first part, personal data were collected, such as teachers' gender, qualifications, teaching experience and their general beliefs about grammar education. Their general beliefs were measured by asking teachers to indicate to what extent they agreed with statements about grammar teaching on a five point likert scale.

In the second part, teachers were invited to describe how they would teach two grammatical subjects: 1. The difference between a *subject complement* ('*naamwoordelijk gezegde*') and a *verbal predicate* ('*werkwoordelijk gezegde*') (a notoriously difficult subject for Dutch students) and 2. The occurrence of direct and an indirect objects in sentences. We asked teachers to describe their preferred approach for two levels of secondary education: the third year of pre-university education ('vwo') and lower vocational education ('vmbo b/k'). This question related to teachers' own 'experientially ingrained' experiences (Phipps and Borg 2009), likely to reflect their core beliefs. To maximize the chance that teachers would complete the survey, they were requested to only describe the main points they would focus on. However, no word limits were imposed. Questions within this part were randomized and after teachers had completed them, they could not return to their answers afterwards. This was done to ensure that teachers would not modify their original answers after they had seen examples of metaconceptual grammar lessons in part three of the survey. This way, we tried to maximize the chance of tapping into teachers' core beliefs in the first question (Phipps and Borg 2009) while minimizing the chance of socially desirable answers or bias.

Table 2. Participants completing the full survey (N = 78).

Participant characteristics (N = 78)		N (%)
Gender	Male	16 (20.5)
	Female	62 (79.5)
Teaching experience	Novice (0–5 years exp.)	24 (30.8)
	Experienced (6–15 years exp.)	27 (34.6)
	Highly experienced (>15 years exp.)	27 (34.6)
Qualifications	Bachelor degree	33 (42.3)
	Master degree	39 (50.0)
	Other	6 (7.7)
Educational type	Lower vocational education (vmbo)	17 (21.8)
	Higher vocational and pre-university education (havo/vwo)	61 (78.2)
Mainly active in upper/lower secondary	Lower secondary	28 (35.9)
	Upper secondary	36 (46.2)
	Equally active in both	14 (17.9)
Dutch provinces represented (/12)	NA	8 (66.7)

The third part of the survey described two lessons of non-existing teachers (who were given common Dutch male and female names). One of these lessons could be characterized as a traditional grammar lesson on the topics described in part 2 of the questionnaire; the other as a lesson in which working with linguistic metaconcepts according to the design principles of Van Rijt et al.(2020) was central. The two randomized examples of lessons for each topic teachers were presented with were of similar length. Teachers were asked to read both examples of grammar lessons and select which of these lessons they felt was the better one. In follow-up questions, they were asked to indicate three reasons why they had made their choice. They were also asked to list three negative aspects of the lesson example they did not choose. Finally, they were asked to state whether their preference for one lesson or the other would change if it was designed for a different educational level (pre-university vs. vocational), and why.

The fourth part of the questionnaire specifically asked teachers to reflect on the design principles that were used in the Van Rijt et al. (2020), and that were also a part of two the example lessons they had seen in the survey. Teachers' beliefs regarding these design principles were measured using a five point likert scale, ranging from 1 ('Fully disagree') to 5 ('Fully agree'). Finally, teachers were asked if they had any comments on the design principles, or about the questionnaire in general.

Results

Focus group interviews – Beliefs on design principles

In Table 3 axial codes related to strengths/possibilities and to weaknesses/difficulties for each of the five design principles from Van Rijt et al., 2020) are presented. We will illustrate these important codes with quotes from the data (cf. Cyr 2016).

Design principle 1: linking traditional concepts to underlying metaconcepts

Teachers felt mostly that an approach in which traditional concepts were related to underlying metaconcepts provided them with means to make students discover things for themselves. They also expressed that this led to more meaningful lessons, in which students refrained from asking questions about why they had to learn about grammar. In

Table 3. Axial codes relating to strengths and weaknesses of metaconceptual design principles.

Design principle	Axial codes related to strengths/opportunities	Axial codes related to weaknesses/difficulties
1 Linking traditional concepts to underlying metaconcepts	Self-discovery, foundation, meaningfulness, differentiation, L2-education(F2)	Difficulty, terminology(F2)
2 Guided inductive assignments	Experimenting with language, visualizing sentences, remembering	Daily practice
3 Dealing with uncertainties	Learning to deal with multiple options, stimulating reasoning/critical thinking	Coping with uncertainty, preparation time, testing
4 Stimulating exploratory talk	Informative discussions, stimulating critical thinking, addresses language intuitions	Preparation time, unidimensionality, reaching consensus
5 Appropriate scaffolding	Developing strategies for linguistic reasoning	Keeping control, teacher's role

All codes were found in both interviews, except for the ones marked with F2, which were only found there.

F2, teachers partly explained this by stating that underlying metaconcepts provided a conceptual foundation for students, leading to more insights into grammar:

T1: *'You will understand traditional terminology much better if you understand and know the underlying concepts.'*

T2: *'Exactly, otherwise it is so meaningless. I also notice this when they start parsing sentences, and they just identify a very strange phrase as the direct object (...). This indicates they have no clue what a direct object really is.'*

T3: *'No, exactly. Because they don't learn this in traditional grammar teaching, because it only provides students with rules of thumb.'*

Teachers from F2 also pointed out that underlying metaconcepts could be beneficial for L2 learning (e.g., learning German or English in the Dutch context), which seems likely because metaconcepts such as valency can be universally used to describe language (cf. Van Rijt & Coppen 2017, 372). Additionally, the teachers from F1 believed that the approach could provide them with more means of differentiation (e.g., not introducing metaconcepts explicitly on the lower levels of education, but teaching based on them). However, they also believed that metaconceptual approaches could generally be employed best in the higher levels of education, especially because of the explicit linguistic terminology:

"Well, I believe, in general, and then I am generalizing a little, that a student from a lower level would be more likely to put his heels in the sand if you introduce difficult metalanguage, initially."

In spite of this view, teachers in F1 later reached a consensus about the effectivity for lower educational levels, stating that it could also prove effective there, but that it would probably require a longer learning curve. One of them even stated that he had tried out one of the intervention's assignments on one of the lower levels (vmbo b/k, vocational education), and that it had been successful. Teachers from F2 held similar views:

'Yes, I only teach the lower levels (vmbo-t, vocational education), and there it is possible to work with valency. It can really be done. Especially because – they don't need the terms – if you work based on the meaning of these verbs ("valency"), they would consider it much more interesting compared to working based on rules of thumb.'

In the higher levels of education in particular, explicit metaconcept use was thought to have its merits for grammatical understanding. When the interviewer asked whether explicitly introducing students to metaconcepts such as valency had fostered grammatical understanding, a teacher from F1 responded immediately:

'It helped to consciously think about valency. How many roles does the verb serve out, what can it do? And only start analysing the sentence after that. (...) And I think they understood the notion of valency pretty quickly. I was actually surprised that it went this fast.'

This was acknowledged by the other teachers of F1. Teachers from F2 held similar beliefs.

Design principle 2: guided inductive assignments

F1 teachers were very satisfied with the guided inductive assignments, in particular because the assignments allowed for active experimentation, and because this type of assignment would be more likely to make (meta)concepts 'stick' than deductive assignments. However, teachers also expressed that this way of working did not match their

daily practice, posing some challenges for them in adequately guiding assignments. They felt that in order to implement and develop adequate inductive grammar tasks, they would need support from each other:

T3: *'You will need each other, I think. You won't make it on your own. I think it is very important that you sit together with a few colleagues and think about how to go about this. You must discuss such assignments. It is very difficult doing this all by yourself.'*

T1: *'I agree. The discussion has to start with the colleagues.'*

Design principles 3 and 4: dealing with uncertainty and stimulating exploratory talk

Teachers were also positive towards the discussions that were stimulated in the intervention, labelling them 'informative' and 'fun' for students (F1). They also expressed that such discussions, steering towards exploratory talk, were or would be good means of promoting critical thinking, since they all revolved around problems for which no clear solutions exist. However, teachers also felt that it was difficult for students to deal with such uncertainties, and that they had a real need for their teacher to provide them with 'the correct answer':

"On the one hand, they like the discussion, but after a very brief discussion they will really ask you: okay, and who is going to give us the answer now? They don't feel like remaining in the dark. I believe it is really necessary for them to cut the knot themselves, but they don't appreciate it, because they long for confirmation." (F1)

Subsequently, the teachers felt that helping students reach consensus was challenging to them, although they considered it crucial for fruitful discussions. Students had a hard time reaching consensus, even with ground rules (cf. Mercer 2013) in place. Teachers had employed different strategies to probe students' reasoning, some of which were successful. Among other things, they would deliberately pose false statement to trigger reasoning, or they would ask follow-up questions to stimulate a deeper argument.

Design principle 5: appropriate scaffolding

Teachers felt they were exploring unknown territory, due to the large differences with their daily practice, in which exploratory talk had no place. Therefore, they had to suppress the urge to intervene too quickly, which was difficult for most of them. Teachers from F1 also indicated that dealing with ill-structured grammatical problems took them a much longer time than normal to prepare, since they felt that they needed to be aware of all the possible answers themselves:

T3: *It really took me quite a lot of preparation time. You really had to overthink all possible scenario's in your mind. This could happen, that could happen ... and this is not the case in a 'normal' lesson. Then, your pace is much higher.*

T2: *Above all, you had to really dive into the material and review the assignments closely yourself.*

T3: *That too, and you have to consider what could occur. That is quite demanding for teachers, that is for certain.*

T4: *But isn't that also because you are not used to doing this in such a manner?*

T3: *Yes, exactly.*

Other hindrances for working based on linguistic metaconcepts were also anchored in teachers' daily practice. First, teachers from both F1 and F2 indicated that it was problematic that their colleagues or teachers from primary school would mostly teach grammar in a traditional manner, which might confuse students or impede teachers' ability to employ a metaconceptual approach. Second, teachers felt that the typical testing culture in Dutch classrooms might force them to resort to traditional forms of testing, i.e. tests in which students would mostly have to parse isolated sentences, rather than trying to reason linguistically based on underlying metaconcepts:

T2: *'What I consider a shame, is that you are stuck to a certain programme as far as grammar is concerned in school. The test is coming, and then you will have to go back to [traditional forms of grammar teaching] – and that is of course a shame. You can't do much else with it.'*

National survey

The focus groups were complemented by a national survey. We will discuss the results from the survey by addressing each of our research questions. In the discussion, we will synthesize these results and discuss implications and limitations.

What are Dutch teachers' general beliefs about L1 grammar education? (N = 127)

Figure 1 lists some of the teachers' general beliefs about L1 grammar teaching.

As can be inferred from Figure 1, Dutch teachers generally hold positive views towards teaching grammar. What stands out from the figure, is that 87.4% of the teachers hold their own grammatical skills in high regard. Moreover, 69.3% of teachers considers grammar of great importance for their students, both in a general sense ($M = 3.78$, $SD = .81$) as well as for their writing development ($M = 3.80$, $SD = .84$). They also consider grammar to be an essential part of the secondary school subject of Dutch language and literature ($M = 3.75$, $SD = .93$), with 66.14% indicating either agreement or strong agreement, and with 22.8% taking a neutral stance. Independent samples T-tests indicated no significant differences on the figure's statements between teachers with a bachelor's degree or with a master's degree, nor did they indicate significant differences between the type of education teachers were most active in (lower educational types vs. higher types). A One Way ANOVA revealed that teacher experience is a significant factor when it comes to the question to what extent they enjoy teaching grammar ($F(2,126) = 4.03$, $p = .020$): novices ($M = 3.56$, $SD = 1.03$) are significantly less fond of teaching grammar than highly experienced teachers ($M = 4.11$, $SD = .85$), as was confirmed by an additional Bonferroni post hoc analysis.

To what extent do teachers favor metaconceptual approaches compared to more traditional approaches, and how does this relate to their core beliefs? (N = 78)

To establish whether a metaconceptual approach might be more related to teachers' peripheral beliefs than to their core beliefs, teachers were first asked to provide open descriptions for how they would teach grammar themselves. After this, they were asked

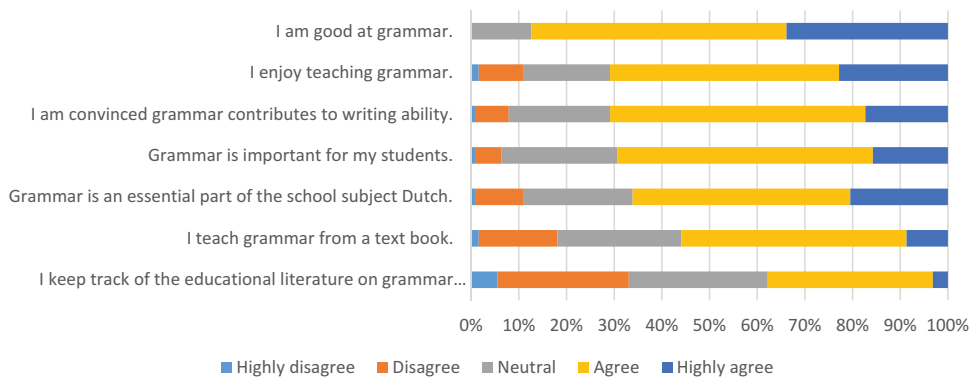


Figure 1. Dutch teachers' general beliefs about grammar teaching (N = 127).

to choose whether they would favor either a metaconceptual lesson example, or a more traditional lesson example (although these lessons were not given such labels).

Teachers' own descriptions of how they would teach grammar were characterized divided into three categories. The first category was labeled 'traditional', and it was used for descriptions that predominantly dealt with traditional grammatical terminology, isolated parsing exercises and rules of thumb or audit questions to arrive at a correct analysis of sentences. Descriptions of lessons that seemed to be predominantly aimed at gaining grammatical insights through underlying metaconcepts were labeled as 'metaconceptual'. Finally, descriptions that showed characteristics of both types equally were labeled as 'mixed'. A typical example for each category can be found in Table 4. No descriptions were given that matched a contextualized approach to grammar.

The first author of the paper did most of the initial coding, and discussed a consensus coding with the other authors. To enhance the validity of the coding, a random selection of 51 cases (13.5% of the total sample) was independently coded by the third author of this paper. Cohen's Kappa showed substantial interrater agreement: ($\kappa = .77$, $p < .001$). Table 5 shows coding frequencies. Teachers most commonly provide traditional descriptions in answering the question how they would teach either direct and indirect objects or

Table 4. Typical examples of descriptions pertaining to teaching categories.

Category	Description by the teacher
Traditional	Step-by-step: always use exemplar sentences that only contain the phrases that were introduced by the teacher. Therefore, no sentences containing adverbials. After that: search for the finite verb, search for the verbal predicate, ask the questions 'finite verb/verbal predicate + who/what', 'finite verb/verbal predicate + subject + who/what' and 'finite verb/verbal predicate + subject + direct object + to whom/for whom/what'.
Mixed	Listening to the song 'Zij' ('She') by Marco Borsato. Does the subject (in the song) perform an action, or is the subject something? Next: extracting subject complements and verbal predicates from the song. Then discuss the theory extensively. Activate prior knowledge on autonomous verbs and auxiliary verbs. Practice extensively.
Metaconceptual	The lesson will at least have to contain something about how sentences are constructed, and which roles verbs require. For example, <i>to give</i> serves out three roles: someone gives something, and there is also someone who receives and that which he or she receives. That way, I would discuss several verbs with my students. This can be done by explanation, but also by using a worksheet with verbs, so that students themselves start to think about the roles that verbs serve out.

the difference between a subject complement and a verbal predicate. A minority of teachers gave descriptions which could be characterized as mainly metaconceptual.

After having openly described the way in which they would prefer to teach themselves, teachers were asked to read two descriptions of grammar lessons on the same topics (direct/indirect object and verbal predicate vs. subject complement), and were asked to choose which they felt was the best lesson. One of these lessons could be characterized as traditional, one of them as metaconceptual. The metaconceptual lesson description adhered to the design principles from Van Rijt et al., 2020.

The traditional lessons presented were ‘taught’ by the fictional teachers Arie (male) and Merel (female); the metaconceptual lessons by the fictional teachers Tim (male) and Judith (female). Table 6 shows teachers’ preference for either teacher.

While on average teachers could be characterized as being 58.4% traditional in their own descriptions of grammar lessons (cf. Table 5), they appear to favour metaconceptual approaches much more when asked to choose between Tim or Arie, or between Judith and Merel ($M = 75.7\%$) – cf. Table 6. Chi squared tests could not detect significant differences in preference between teachers with a master’s degree or with a bachelor’s degree ($\chi^2(1) = 3.19, p = .074$), or between (highly) experienced teachers and novices ($\chi^2(2) = 3.79, p = .15$). For the variables of gender or teachers’ own practice (i.e., being active in either lower vocational or higher education types) Fisher’s exact test found no significant effect. The only characteristic revealing a significant result was whether teachers would mainly teach in the upper years or in the lower years of secondary education. Teachers who were mainly active in the upper years more strongly favoured a metaconceptual approach ($\chi^2(2) = 7.18, p = .028$).

The reversed pattern found between Tables 5 and 6 raises the question what the relationship between teachers’ own descriptions and their stated preference from Table 6 is. Specifically, what is the influence of teachers’ initial teaching category on their choice

Table 5. Frequencies of how teachers would teach grammatical subjects at different educational levels.

How teachers would teach ...	direct and indirect objects, pre-university (%)	direct and indirect objects, lower vocational (%)	subject complement and verbal predicate, pre-univ. (%)	subject complement and verbal predicate, low. voc (%)
Traditional	45 (57.7)	48 (61.5)	44 (56.4)	33 (57.9)
Mixed	12 (15.4)	15 (19.2)	23 (29.5)	13 (22.8)
Metaconceptual	20 (25.6)	12 (15.4)	11 (14.1)	11 (19.3)
Missing*	1 (1.3)	3 (3.8)	0	21 (26.9)

*Some teachers indicated either lacking the expertise to provide an adequate description of a lesson for a particular educational level ($N = 6$) or they simply stated that they would never teach the difference between a subject complement and a verbal predicate in lower vocational education ($N = 19$), resulting in some missing values.

Table 6. Teachers’ preferences for either traditional or metaconceptual approaches ($N = 78$).

Type	Teacher	N (%)	Teacher	N (%)
Metaconceptual	Tim	61 (78.2)	Judith	57 (73.1)
Traditional	Arie	17 (21.8)	Merel	21 (26.9)

Table 7. Relationships between initial teaching categorization and later teacher preference.

Initial category	Frequencies	Pre-university		Lower vocational	
		Tim	Arie	Tim	Arie
Traditional	Count	31	14	35	13
	Expected count	35.1	9.9	37.1	10.9
Mixed	Count	11	1	12	3
	Expected count	9.4	2.6*	11.6	3.4*
Metaconceptual	Count	18	2	11	1
	Expected count	15.6	4.4*	9.3	2.7*
		Judith	Merel	Judith	Merel
Traditional	Count	25	19	21	12
	Expected count	32.2	11.8	24.9	8.1
Mixed	Count	21	2	11	2
	Expected count	16.8	6.2	9.8	3.2*
Metaconceptual	Count	11	0	11	0
	Expected count	8.0	3.0*	8.3	2.7*

* Indicates a violation of the chi squared assumption that expected count is <5.

for either a metaconceptual or a traditional grammar lesson at a later stage? Table 7 gives insight into the ratio between initial teaching category (traditional, mixed, metaconceptual) and later teaching preference. From the table, the impression emerges that when teachers' core beliefs can be categorised as metaconceptual, they are more likely to favour a metaconceptual approach. Teachers whose core beliefs are more traditional appear to favour traditional approaches more than teachers with a metaconceptual signature, although these teachers also seem to be open to metaconceptual approaches. Teachers who were initially categorized as 'mixed' tend to prefer metaconceptual approaches as well. Chi squared tests were used to test these impressions for significance. In the case of the lessons by Tim (metaconceptual) and Arie (traditional), 20% of the expected count cells from Table 7 were below 5, meaning that a basic assumption of chi squared testing was violated, resulting in significant power loss (Field 2013, 735). No significant effect was found for either pre-university education ($\chi^2(2) = 5.75, p = .076$) or for lower vocational education ($\chi^2(2) = 2.0, p = .37$). Significant effects were found for the lessons by Judith (metaconceptual) and Merel (traditional) for both pre-university education ($\chi^2(2) = 13.85, p = <0.01$) and lower vocational ($\chi^2(2) = 6.65, p = .036$), even though in the latter case, a chi squared assumption* was violated too.

What strengths and weaknesses do teachers identify in metaconceptual approaches compared to traditional approaches?

In open questions, teachers were asked to list three strengths for their preferred approach (metaconceptual vs. traditional) and three weaknesses for their non-preferred approach. Following Graus and Coppen (2015), we organized teachers' reported strengths and weaknesses into a 'didactic triangle' (based on Kanasanen 1999), in order to identify which areas their comments are related to. The triangle encompasses the components that teachers referred to when listing strengths and weaknesses: the subject content ('grammatical knowledge'), the (characteristics of) the student, and (the characteristics of) the teacher. These dimensions form the outer points of the triangle. In the middle of the triangle is what links the other three dimensions: the pedagogical arrangement (PA). Thus, the triangle is divided into three sections (cf. Figure 2), indicating three dimensions

of teachers' reported strengths and weaknesses. The section between *grammatical knowledge*, *PA* and *student* represents the relationship between the grammatical knowledge, the pedagogical arrangement and the student. This includes, for instance, comments on students' difficulties in understanding the complexity of the linguistic content, as represented by the pedagogical arrangement. We will call this the *student understanding dimension*. Likewise, the section between *student*, *PA* and *teacher* encompasses comments on the role of student-teacher interaction in learning, including comments on easier organization and student activation. This will be referred to as the *interactional dimension*. And finally, the section between *grammatical knowledge*, *PA* and the *teacher* represents teachers' own understanding and their mastering of the pedagogical translation of the subject matter (the *teacher mastering dimension*). In what follows, we will illustrate the dimensions of the triangle with reported strengths and weaknesses, listing only the most salient ones that could be clearly categorized (≥ 10 mentions).

From Figure 2, it can be observed that in general, teachers seem to identify strengths of metaconceptual approaches most in the *interactional dimension*, whereas they perceive weaknesses most in the *student understanding dimension*. For the metaconceptual approach, judgements are more balanced: strengths and weaknesses are perceived in

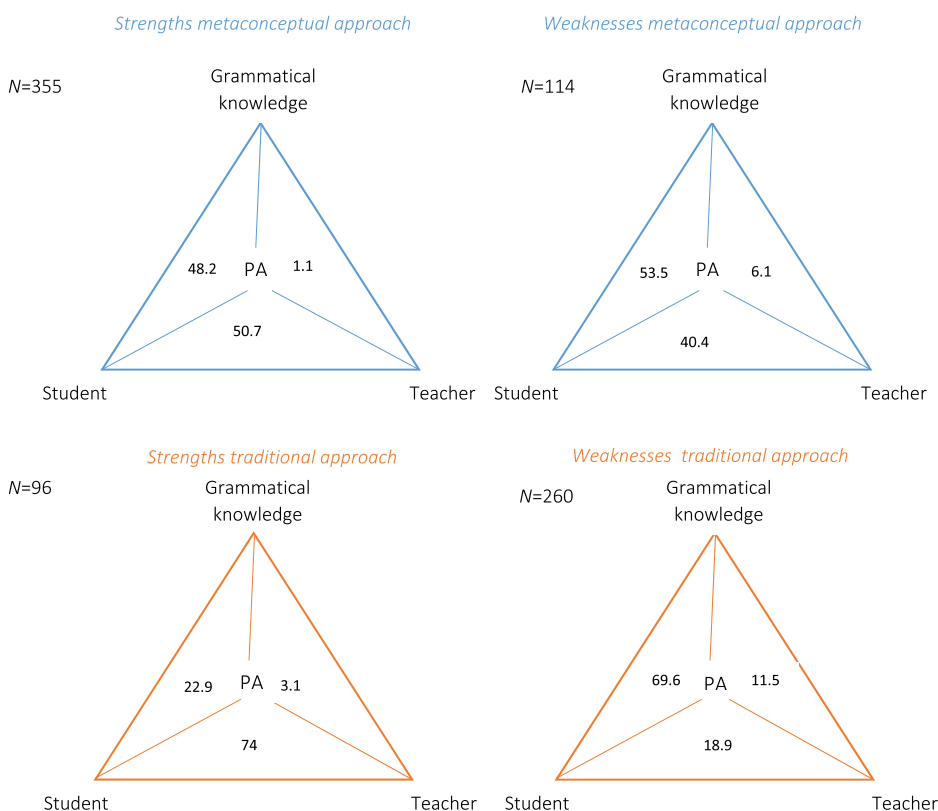


Figure 2. Pedagogic triangles, showing which percentages of reported strengths or weaknesses fit into a specific category. PA = pedagogical arrangement. N = total number of comments made per triangle.

both dimensions. Judgments on the traditional approach show a perception of a dominant strength in the *interactional dimension*, and a stronger weakness in the *student understanding dimension*. Overall, the *teacher mastering dimension* is rarely touched upon.

Reported strengths for metaconceptual approaches in the student understanding dimension could be summarized as: metaconceptual approaches lead to more insights into grammar (39 mentions), are based on underlying metaconcepts (38 mentions), the approach avoids rules of thumb (15 mentions) and it allows students to learn how to reason linguistically (22 mentions), in part because it stimulates students' own language intuitions (11 mentions). A metaconceptual approach was also believed to make grammar more meaningful than a traditional approach (13 mentions). By contrast, the student understanding dimension is the major weakness of the traditional approach (69.6%), of which the reported weaknesses mainly mentioned the application of rules of thumb (50 mentions), limited insights into grammar (40 mentions), being too theoretical (22 mentions) and avoiding grammatical uncertainties (15 mentions). The strengths of a traditional approach in this dimension only had one somewhat substantial group: 'working with an already familiar body of knowledge' (7 mentions).

Many comments on the strengths of a metaconceptual approach also related to the didactic or pedagogical advantages or opportunities such an approach offers the teacher in facilitating students' grammatical learning (50.7% of all comments). Common strengths could be categorized as: using inductive instruction ('self-discovery', 48 mentions), using group work and discussion as a tool for learning (29 mentions), using activating assignments (28 mentions) and allowing for more creativity and playfulness in grammar lessons (18 mentions). Reported strengths for a traditional approach in the interactional dimension (74% of all comments) revealed only two salient groups: traditional grammar lessons are being perceived as more structured (27 mentions) and according to some teachers, they have the benefit of working with carefully selected exemplary sentences (18 mentions).

What stands out from [Figure 2](#), is that the reported weaknesses of a metaconceptual approach are located between the same ends of the triangle as its strengths (53.5% of the comments student understanding dimension, and 40.4% in the interactional dimension). Reported weaknesses of a metaconceptual approach in the student understanding dimension can be summarized as follows: too complex terminology (31 mentions, with 10 mentions for valency and 21 for predication) and its high level of abstraction or conceptual difficulty (14 mentions).

Reported metaconceptual weaknesses in the interactional dimension (40.4%) related to possible confusion or uncertainty for students (14 mentions), and to a much lesser extent, the possibility of a 'chaotic' grammar lesson (10 mentions, 6 of which pertained to the use of exercises with plasticized cards). In the same category, traditional lessons are believed to possess the following weak points: frontal teaching/teacher-driven (24 mentions), no real student co-operation or discussion (13 mentions) and being tedious (12 mentions). When it comes to the teacher mastery dimension in metaconceptual approaches, 3 teachers pointed out the disadvantage that the approach is more demanding for the teacher.

Finally, teachers were asked to reflect on the design principles underpinning the metaconceptual lessons. They were asked to judge to what extent each of the design principles would contribute to grammatical insights. [Figure 3](#) summarizes teachers' views on these principles.

What stands out from Figure 3, is that teachers find all of the design principles fairly important for achieving insights into grammar, except for the design principle in which linguistic metaconcepts are explicitly related to underlying concepts from traditional grammar. 42.3% of the surveyed teachers consider this either very unimportant or unimportant, whereas 29.5% attributes importance to this design principle for achieving grammatical insight.

To what extent do student variables influence the teachers' beliefs?

Teachers were also asked to indicate to what extent their preferred choice for either a metaconceptual grammar lesson or a traditional one would change if the level of the learner would change, i.e., teaching pre-university students versus lower vocational students. Figure 4 lists how often teachers indicated that they would change their initial preference from pre-university education to lower vocational education and vice versa. In this table, mixed lessons represent lessons combining both a traditional and a metaconceptual approach.

As can be inferred from Figure 4, 75.4% of teachers who initially favoured a metaconceptual approach for a lower educational level would make no or very limited changes in a metaconceptual lesson for a higher educational level, and a minority of teachers would favour a more traditional approach in that case. 66.1% of the teachers who initially preferred the described metaconceptual approach on a high educational level would not make any or no substantial changes at all when teaching the same lesson to a low level. However, 30.6% of them would make at least one minor change. These changes can largely be sought in the use of linguistic terminology. From the 19 cases, 17 would opt to not use the term 'valency' explicitly, considering it too difficult for lower vocational students. Likewise, all 8 teachers from the 'no change except'-category would avoid explicitly using the word 'predication' on a lower educational level, but they would explicitly introduce it on pre-university education.

22.6% of teachers who prefer a metaconceptual lesson on pre-university education would prefer a traditional grammar lesson on lower vocational education. By contrast, only 12.3% of the teachers preferring a metaconceptual lesson on a low educational level

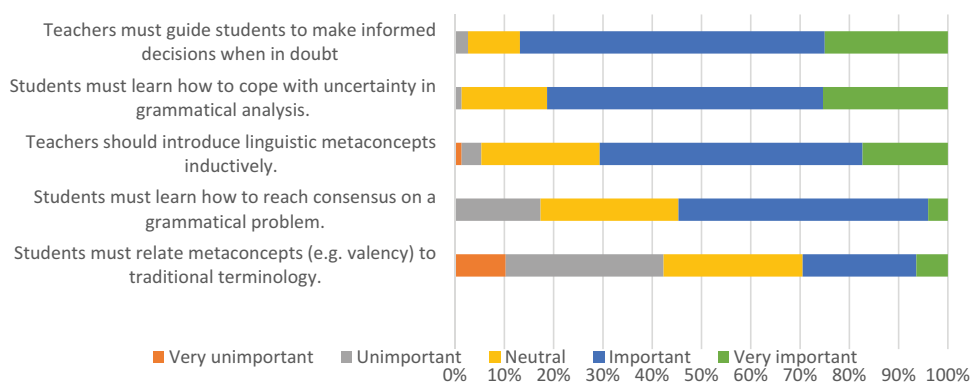


Figure 3. Teachers' beliefs on the contribution of design principles underpinning metaconceptual lessons to gain grammatical insight (N = 78).

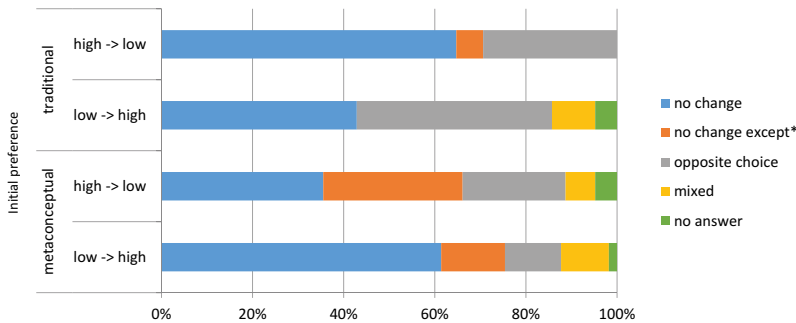


Figure 4. Percentages of teachers changing their preference when the described lessons would have to be given at a higher or lower educational level (pre-university vs. lower vocational). *Note This category was used when teachers would make only very minor changes to the lesson example of their preferred type.

would prefer a traditional lesson on a higher level. Likewise, those who preferred a traditional grammar lesson on a high educational level, would not change this when teaching on a low level (64.7%). Almost one third of the teachers would then prefer teaching based on linguistic metaconcepts. From a low educational level to a high level, teachers' preferences are more evenly divided.

Discussion

Interpretation of main findings

The current study set out to investigate Dutch language teachers' beliefs on L1 grammar teaching, in particular regarding their views on metaconceptual grammar approaches compared to traditional approaches. The investigation revealed that most Dutch language teachers consider grammar as very important, both for their students and for the subject of Dutch Language and Literature in a general sense. Given teachers' predominantly traditional descriptions of how they would teach grammatical topics, it might be concluded that the type of grammar teaching they are mostly referring to when talking about the importance of grammar is traditional grammar teaching. This finding aligns with those from previous work, in which it was also indicated that Dutch language teachers tend to favor traditional practices (Bonset and Hooegeveen 2010; Van Gelderen 2010).

Interestingly, teachers' initial descriptions were found to be fairly traditional, unlike later, when they were requested to choose between metaconceptual descriptions of lessons or traditional ones. Many teachers who gave a traditional description of the teaching method they used in the first question showed a preference for the metaconceptual, non-traditional method in the second question. There are two main explanations for this.

First, it is conceivable that some teachers did not think of, or could not imagine, other methods than the ones they actually used. Provided with an alternative option, they perceived some attractiveness in it, and chose the alternative option. Another explanation is that the method they are used to is also the method that constitutes their core beliefs.

Since they were asked how they would actually teach, they interpreted this question from the perspective of their core beliefs. The second question, involving the hypothetical options, was perhaps more interpreted from a theoretical, more peripheral perspective, causing it to be judged from teachers' peripheral beliefs. This might also be a result of contextual factors, which can mediate 'the extent to which a teacher can act in accordance with his or her beliefs' (Phipps and Borg 2009, 381). While teachers are open to metaconceptual approaches, factors such as the available time, testing culture, prescribed curriculum and their own knowledge might influence what they can actually achieve in classroom practice. When teachers were asked to explain how they would teach grammar, they are likely to have given descriptions with such contextual factors in mind. Their later preference may have been much different because contextual factors played a much lesser role there, since teachers only had to choose between two examples in which all necessary context had already been given. In that sense, their later metaconceptual preference might resemble an ideal classroom situation, influencing their decision. From the focus group interviews, it became clear that such factors (such as testing) may play an important role in the implementation of metaconceptual grammar teaching. This may also explain why teachers who are teaching in upper secondary education might find a metaconceptual approach particularly appealing. In the Dutch context, grammar is not being taught in the upper levels of secondary education (cf. Van der Aalsvoort 2016), meaning that those teachers are more likely to base their decision on ideal situations rather than on contextual limitations. Another possible explanation is that upper-level teaching is more associated with the development of intellectual and metacognitive skill (Veenman and Spaans 2005), which is more likely to be achieved in a metaconceptual approach than in a traditional one.

An initial preference for metaconceptual teaching is more likely to qualify as a core belief: such a preference is stable over the two questions (cf. Table 7). Almost no teacher changed from metaconceptual to traditional in the second question, whereas the opposite does hold. Although only a significant relationship between initial preference and later choice could be found for the lessons by the fictional teachers Merel and Judith in this regard (cf. Table 7), the overall picture is the same for the lessons by the fictional teachers Arie and Tim as well, making it likely that the lack of a statistically significant result can simply be attributed to the violation of chi squared assumptions. In other words: what teachers say they would do in their own grammar lessons predicts their later preference in a task in which they have to weigh different options.

The teacher beliefs from this study align with those from a previous study (cf. Van Rijt et al., 2019c), which found that Dutch grammar lessons at secondary education are predominantly traditional, in spite of the fact that teachers hold positive views towards working based on underlying metaconcepts. With respect to curriculum development, it is encouraging that teachers are open to approaches that are more insightful, especially given the positive benefits associated with working based on linguistic metaconcepts (Van Rijt, Wijnands, and Coppen 2020; 2019b). The fact that teachers appear to be open to conceptual and pedagogical enrichments of traditional grammar teaching contributes to the possibility of introducing meaningful non-instrumental alternatives to traditional grammar teaching in the Dutch curriculum, as is currently being debated (Curriculum.nu 2019). This is especially welcome for teachers who wish to seek guidelines for such non-instrumental grammar teaching in formal documents (e.g. Meijerink 2009).

Teachers see many benefits of applying a metaconceptual approach in their grammar teaching, especially on the *student understanding dimension* (cf. Figure 2). Most of the strengths of a metaconceptual approach relate to an improved understanding of the subject matter. Teachers indicate that metaconcepts are more likely to provide students with an in-depth understanding of grammar, whereas traditional grammar teaching is criticized for its limited ability to generate understanding.

The related pedagogical arrangement (inductive instruction, sociocultural learning, dealing with grammatical uncertainties and appropriate teacher scaffolding) was also positively valued, which was confirmed by teachers' explicit reflections on the design principles from Figure 3. The one design principle that teachers were less positive on, was the principle that stated that traditional concepts should be related to underlying linguistic metaconcepts explicitly. Given teachers' clear preference for metaconceptual lessons, it is safe to assume that rather than rejecting the metaconcepts themselves, teachers are reserved when it comes to introducing the related linguistic terminology. This was also mentioned in the focus group interviews, and it was considered a particular risk for grammar teaching on the lower educational levels. In this sense, teachers seem to believe that terms which students (and perhaps even they themselves) are not or less familiar with contribute to grammatical difficulty (Graus and Coppen 2015). Teachers seem to believe that difficult terms also necessarily represent difficult concepts. Although previous research suggests that explicitly applying metaconceptual terminology strongly contributes to students' grammatical learning and reasoning (Van Rijt et al. 2019b; 2020), teachers tend to seek ways to either avoid such terms in their teaching altogether or they aim to find replacing terms (e.g., 'roles of the verb' rather than valency, or 'doing versus being' for predication). This holds especially for lower educational levels. While indeed the underlying metaconcepts can be considered more vital to grammatical understanding than the terminology itself, such terminology should not be replaced or left out lightly, since such pedagogical decisions can hamper grammatical understanding too (cf. Myhill 2003). The correct application of metalinguistic terminology might be seen as a means of differentiation: on higher educational levels, teachers might expect their students to cope with such terms (which can enhance and deepen their knowledge), whereas terminology is less important for students from lower levels.

When learner variables are factored in, it seems that metaconceptual approaches are considered to be more suitable for pre-university education than for lower vocational education. The opposite holds too: traditional grammar teaching, being associated with structured explanation and carefully selected exemplar sentences, is preferred more in lower educational levels. Generally, teachers worry that a metaconceptual lesson is too sophisticated for low level learners (who are believed to be practical and are in need of structured and straightforward explanations), especially when introducing explicit terminology. Curriculum development aiming to incorporate a non-instrumental vision of grammar, considering grammar as a valuable goal to gain understanding of language, should take such aspects into account. Instrumental perspectives towards grammar might also benefit from the data this study has offered, especially if curriculum developers strive to take teachers' beliefs into account in developing updated versions of the curriculum.

Teacher education also has a potential role to play here. Students will need to learn about metaconceptual forms of grammar teaching in order to make them more comfortable with grammar in classrooms. It is likely that such approaches can also be beneficial for their own understanding of the subject matter, since it has already been proven that university students of Dutch language and literature can benefit from a metaconceptual course, as well as secondary school students (The Van Rijt, Wijnands, and Coppen 2020; 2019b). There is no reason why students from teacher education could not benefit equally. It is crucial that they do, however, since it seems that teachers who are most comfortable around grammar (i.e., teachers who possess the highest levels of grammatical understanding) and those who have strong pedagogical content knowledge can have the greatest impact on grammar education (Myhill, Jones, and Watson 2013).

Study limitations

The current study is the first to have taken systematic inventory of Dutch teachers' beliefs on traditional and metaconceptual grammar teaching, applying a sampling strategy that allows for some generalizations. However, this exploratory study also has some downsides. The first is that in spite of an elaborate sampling strategy, the total number of respondents is relatively limited, particularly regarding teachers from lower vocational education. This is unfortunate, since for lower vocational education in particular, studies on grammar teaching and grammatical understanding are extremely scarce. At the same time, the problems surrounding grammar teaching are arguably most extensive for lower-level learners. Future research would do well to pay particular attention to this target group.

Additionally, in the absence of a database of teachers, there is no insight into the relation between responders and non-responders. This limits the study's generalizability, in the sense that particular biases towards grammar teaching for the participating teachers cannot be completely ruled out. On the other hand, there is no better data sample on Dutch teachers' beliefs on L1 grammar available.

The second downside is that the format in which the survey was put may have unintentionally influenced teachers' beliefs: at a certain moment in the questionnaire, teachers may have realised that the survey predominantly focused on metaconceptual approaches, which may have led to socially desirable answers. However, several steps were taken to prevent this from happening, such as not providing an option to alter previously given answers. Finally, more focus groups could have been consulted, although the two groups we worked with had such similar views that the data quickly became saturated, making it not as necessary to engage in any more focus group interviews.

Implications for future research

Given that we are now beginning to gain a much deeper understanding of the benefits of metaconceptual grammar lessons and teachers' beliefs on the matter, it would be a logical next step to develop metaconceptual instruction that closely matches the teachers' beliefs (i.e. dealing with the issue of terminology, or finding more effective ways to pedagogically enrich metaconcepts). It should be explored more deeply what

teachers need to know about linguistic metaconcepts in relation to students' grammatical understanding, both for grammar teaching per se (to develop language awareness, language insight and linguistic reasoning ability) and for contextualized grammar teaching (to develop literacy development). More research is also requested from an international perspective, involving educational jurisdictions which are different (e.g. less traditional) from the Dutch context. Such research is essential in further improving L1 grammar teaching.

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