

THE USE OF A CORPUS TOOL ANTCONC FOR TEACHING GERMAN GRAMMAR

Suci Pujiastuti¹

¹ Universitas Negeri Medan pujiastutisuci@unimed.ac.id

ABSTRACT

The aim of this research is to develop a corpus method specifically for learning and teaching German for B1 level grammar courses for German students. This research uses a corpus-based development method by Scherer with several phases, namely: collecting corpus data, inputting data in the corpus tool, reading data in the corpus tool, validation of data and using the corpus for teaching of German grammar (Grammatik).

Grammatik is the knowledge of grammar or the rules used in writing and speaking German. This field has many rules and German students, especially in the German Language Education Study Program, Faculty of Languages and Arts, Universitas Negeri Medan, often face difficulties in the process of understanding grammar, so a method is needed, namely the Corpus method, to study German grammar.

Key Words: AntConc, Corpus, Grammar, German

ABSTRAK

Tujuan dari penelitian ini adalah untuk mengembangkan metode korpus yang secara khusus digunakan dalam pembelajaran dan pengajaran bahasa Jerman untuk mata kuliah tata bahasa tingkat B1 bagi mahasiswa bahasa Jerman. Penelitian ini menggunakan metode pengembangan berbasis korpus yang dikemukakan oleh Scherer dengan beberapa tahapan, yaitu: mengumpulkan data korpus, memasukkan data ke dalam alat korpus, membaca data dalam alat korpus, validasi data, dan menggunakan korpus untuk pengajaran tata bahasa Jerman (Grammatik).

Grammatik adalah pengetahuan tentang tata bahasa atau aturan yang digunakan dalam menulis dan berbicara dalam bahasa Jerman. Bidang ini memiliki banyak aturan, dan mahasiswa bahasa Jerman, khususnya di Program Studi Pendidikan Bahasa Jerman, Fakultas Bahasa dan Seni, Universitas Negeri Medan, sering mengalami kesulitan dalam memahami tata bahasa. Oleh karena itu, diperlukan sebuah metode, yaitu metode Korpus, untuk mempelajari tata bahasa Jerman.

Kata Kunci: AntConc, Corpus, Tata Bahasa, Bahasa Jerman

INTRODUCTION

One of the topics of digitalization that is growing and continuing to grow is the digitalization of texts. In the past, text was printed in newspapers, books or magazines. Little by little, text goes through a digitalization process where text can be read via smartphones, laptops, computers or through applications or tools (The AntConc software version 4.2.0). The digitalization of texts also affects the learning styles of students and lecturers. With the digitalization of text, the text can be easily found in seconds and the text can be used in learning and teaching.

The corpus tool, for example AntConc, is one of the tools that read digitized texts. The field of corpus belongs to the family of linguistics, especially computational linguistics. AntConc is a powerful and free corpus analysis tool that can also be of great use for teaching German, especially for grammar.

Here is a detailed guide on how to use AntConc in the context of teaching and learning German, especially for the topic of German grammar (2015):

1. Concordance analyses

a. Using example sentences

AntConc can be used for identifying target linguistic feature. A specific word or grammatical structure (e.g. *weil (because)*, *deshalb (therefore)* or *dass (that)*) can be entered in the tool of AntConc. The examples illustrate a range of grammatical categories, for example *weil (because)* represents a conjunction, specifically a causal conjunction. *deshalb (therefore)* represents an adverbial conjunction that indicates a logical consequence. *dass (that)* represents a versatile element that can function as a relative pronoun, a conjunction introducing a subordinate clause, or a demonstrative pronoun. After that, all occurrences in the corpus can be seen or discovered.

This initial phrase highlights the focus on pinpointing precise linguistic elements within a text. It is not dealing with broad concepts, but rather concrete, identifiable units. The contexts in which these words are used can be analyzed to show students how they function in real texts. This helps students develop a deeper understanding of the meaning and use of grammatical elements. On the other side, this demonstrates that the method is applicable to diverse grammatical features, from individual words to more complex structural patterns as well.

b. Uncovering patterns

Examine how certain verbs are used with prepositions (e.g. *denken an* (*to think about*)). It can identify typical sentence structures and word orders. This allows students to recognize grammatical rules using authentic examples.

A concrete example of this is the phrase *denken an* (*to think about*), where the reflexive verb *denken* (*to think*) is inseparably linked to the preposition *an* (*about*) to express the meaning *to be thought about something*.

Through a systematic analysis of such verb-preposition combinations with the help of the tool AntConc, characteristic sentence structures and typical word orders within the German language can be uncovered. Examining these structures enables students to recognize the underlying grammatical rules not through abstract explanations, but through the direct observation and analysis of authentic language examples. This means that students do not have to memorize the grammatical principles, but can discover and internalize them independently through the analysis of real, naturally occurring sentences and phrases.

2. Collocation analyses:

a. Word combinations

This method involves the systematic identification and analysis of word combinations in which certain words occur regularly and in close proximity to other words. This means that one examines which words are typically used together with a fixed core word. For example, it is analyzed that the adjective *stark* (*strong*) often occurs in direct connection with the noun *Liebe* (*love*) to form the phrase *starke Liebe* (*strong love*). It is also examined that the noun *Deutsch* (*German*) is often combined with the verb *lernen* (*to learn*) to form the idiomatic expression *Deutsch lernen* (*to learn German*). This type of analysis is of particular use in German lessons, as it helps students to learn idiomatic expressions and typical word combinations. Idiomatic expressions are fixed phrases whose meaning cannot be derived from the literal meaning of the individual words, but which have a transferred, often culturally influenced meaning. Typical word combinations, also called collocations, are pairs of words that often occur together in a particular language and sound natural. By exploring such word combinations, students can develop a deeper understanding of the nuances of the German language and learn how words combine with each other in a natural and idiomatic way. This allows them to expand their language competence and improve their expressiveness by learning how native speakers use the language. Instead of learning individual words in isolation, students learn how

words work together in their natural context, leading to more authentic and effective language acquisition.

b. Grammatical collocations

This methodological approach focuses on the precise investigation and identification of the specific prepositions that are typically used in the German language after certain verbs or adjectives. Through careful analysis, it is determined which prepositions occur in direct connection with selected verbs or adjectives and the respective function of these prepositions in the context of the respective part of speech is illuminated. This detailed investigation enables students to develop a deep understanding of the correct use of prepositions in German. Instead of relying on vague rules or intuitive assumptions, students are enabled to systematically grasp and internalize the specific prepositions that are obligatory or common after certain verbs or adjectives. This type of analysis helps to minimize typical sources of error that often arise from the incorrect transfer of preposition patterns from the mother tongue or from inaccurate learning materials. By examining the specific prepositional compounds in their natural context, students can recognize the nuanced differences in meaning evoked by the use of different prepositions. This method promotes a precise and contextual understanding of German prepositions, which in turn leads to improved language competence and greater confidence in oral and written expression. The systematic recording of these prepositional compounds enables students to build a solid foundation for the correct use of prepositions in German, which is an essential prerequisite for successful communication.

3. Word lists and frequency analyses:

a. Common errors

Create word lists of student texts and identify common errors or unusual word usages. This allows lecturers to target their students' needs.

b. Vocabulary work

Create word lists on specific topics or text types. Analyze the frequency of words to show students which words are particularly important.

4. Keyword analyses

Text type analysis

Compare the word lists of different text types (e.g. formal letters vs. informal emails). Identify keywords that are typical of certain text types.

This helps students recognize the linguistic differences between different types of texts.

Literature Review

According to Scherer (2014) and Zinsmeister & Andressen (2019), the corpus is a collection of texts, both texts as a whole and parts of texts, which are digitally selected and organized according to certain scientific or non-scientific criteria and linguistically in the sense of being suitable for everyday use and in writing use should be checked. Text can be a collection of electronic letters, short stories, novels, novellas, newspapers, tweets/statuses in Twitter or X/Facebook/Instagram applications or diaries (Pujiastuti, 2018).

This method of digitizing texts is then adapted into a knowledge, namely corpus linguistics, so that it can be scientifically examined both quantitatively and qualitatively to what extent digitized texts can help people, for example in learning a language, both the native language, regional languages as well as foreign languages (Citraresmana).

To learn German, which is a foreign language for Indonesian speakers, the corpus-based method can be used. One of them is learning grammar. This knowledge is a knowledge that studies the structure of language, which is very useful when composing phrases or sentences. The corpus method allows students or lecturers to understand the knowledge of grammar through a collection of example sentences that have been used in everyday life. This method of learning grammar through the corpus is a method that is still rarely used in Indonesia. Therefore, the researcher of this present study attempted to conduct a study on how German students and lecturers can learn about German grammar through the corpus method, especially for the B1 (intermediate) level (Pujiastuti, 2018).

With this in mind, the issues in this study are:

1. Which parts of German grammar can be found using the corpus-based method in the corpus tool AntConc?
2. How can a learner learn German grammar using the corpus-based method?

Based on the above issues, the objectives of this study are as follows:

1. The analysis of German grammar that can be found using the corpus-based method in the corpus tool AntConc;
2. Description of learning German grammar using the corpus-based method.

The goals of using the corpus method in teaching and learning the German language are:

1. The corpus method is one of the alternative methods that can be used when learning German, although this method is still relatively rarely used in Indonesia, especially for learning the German language (Pujiastuti, 2022, 2024);
2. The corpus (plural: the corpora) can be used for different language levels, both elementary and intermediate and advanced, both levels A1 and A2 (basic), levels B1 and B2 (intermediate) as well as the levels C1 and C2 (Advanced);
3. The texts used in the corpus are original texts used in life, either academic or nonacademic texts. This is different from texts that are created or shaped for a specific purpose, such as learning, where the text is not necessarily used by speakers or students, such as only for creating a language dictionary or learning a language. This can enable corpus users to know examples of words, phrases and sentences that are real and not made up, used in everyday life. (Scherer, 2014)

METHOD

The research phases are represented by a fishbone diagram.

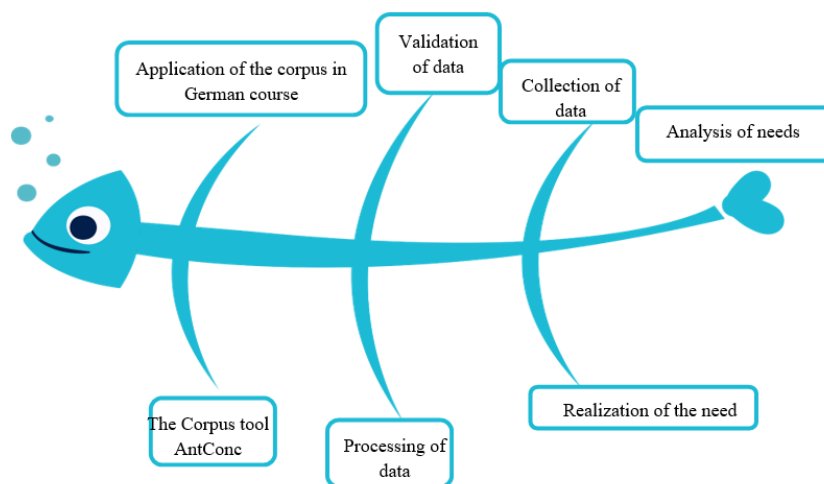


Fig. 1. The fishbone diagram for developing the corpus with the AntConc as a corpus tool

The application of an Ishikawa diagram, also known as a fishbone diagram, makes it possible to visualize a structured process for developing a grammatical teaching material. The first, fundamental step in this process is to conduct a comprehensive needs analysis. This analysis serves to identify the specific needs and challenges of students in the area of grammar. Based on the results of the needs analysis, the corpus development method is applied. This method involves the systematic collection and preparation of authentic language data. The collected data is carefully processed to filter out relevant grammatical patterns and structures. The prepared data is then imported into the corpus analysis tool AntConc. This tool enables a detailed analysis of the language data to study and visualize grammatical phenomena. To ensure the validity and reliability of the data, it is reviewed and validated by experts with proven expertise in the field of corpus linguistics or corpus-based research. These experts assess the quality of the data collection, the accuracy of the processing and the relevance of the findings obtained. Based on the analyzed and validated data, a corpus is developed that is specifically designed as teaching material for grammar lessons. This teaching material is intended to enable students to understand and apply grammatical rules and structures using authentic examples, thereby promoting a practice-oriented and effective learning process. The use of an Ishikawa diagram thus serves as a structuring element to present the entire process from needs analysis to the development of the teaching material in a clear and comprehensible manner.

RESULTS

The topics of German grammar in this study come from the textbook, the *Studio [express] B1* Course and exercise book from Cornelsen-Verlag, written by Hermann Funk and Christina Kuhn (2017). 20 topics are used for this research, but specifically for this article, only five German grammar topics are described due to the page limit, they are:

1. Nominalization with *zum* (for + the ...)

1	Data Korpus ...	ung eines Wörterbuches mit der Adobe Flash CS3 Software	zum Lernen	von „Deutsch im Hotel“ mit dem Thema „In
2	Data Korpus ...	hung ist ein Wörterbuch mit der Adobe Flash CS3 Software	zum Lernen	von „Deutsch im Hotel“ mit dem Thema „In
3	Data Korpus ...	ung eines Wörterbuches mit der Adobe Flash Cs3 Software	zum Lernen	von „Deutsch im Hotel“ mit dem Thema „In

Fig. 2. Nominalization with *zum*

- Die Nutzung der Technologie zum Lernen ist unvermeidlich geworden.

Fig. 3. Nominalization with *zum*

From Figures 2 and 3, students can learn about nominalization *zum* (*for + the ...*). Nominalization refers to the verbs that are transformed into a noun and are added with the preposition *zu + der Artikel*, for example the verb *lernen* → the Nomen *lernen* is *das Lernen* → *zu + dem Lernen* → *zum Lernen* (*for learning*).

By using the corpus analysis program AntConc, authentic examples of nominalization can be found, helping students to study and understand this grammatical phenomenon in more depth. It means, the tool AntConc makes it possible to extract authentic examples of nominalization from a corpus, which serve as a basis for students to engage in detailed exploration of this grammatical concept.

2. Subordinate clause with *während* (*while*)

3	Data Korpus ...	nmen hat. Das Transfercredit wird nicht nur als Lernprogramm	während	der Pandemie Covid-19 durchgeführt, sondern auch als Pri
4	Data Korpus ...	in dieser Untersuchung sind: Wie ist die Online-Lernstrategien	während	der Pandemie Covid-19 von dem Transfercreditprogramm an d
5	Data Korpus ...	technischen Universität Dresden? Welche Online-Lernstrategien	während	der Pandemie Covid-19 von dem Transfercreditprogramm setz

Fig. 4. Subordinate clause with *während* (*during*)

- Während die Untersuchung durchgeführt wurde, sammelte das Team relevante Daten, um das neue Bildungsprodukt zu entwickeln.
- Die Verfasserin konnte neue Erkenntnisse gewinnen, während sie das Entwicklungsmodell von Richey und Klein anwandte.

Fig. 5. Subordinate clause with *während* (*during*)

The paraphrase emphasizes the "dual grammatical function" of *während* (*while*) as a preposition and conjunction, for example *während* (*while*) + *der Pandemie* (*the pandemic*) (preposition + genitive) and *während* (*while*) *die Untersuchung* (*the investigation*) (conjunction). It explains that this versatility leads to "different syntactical constructions." The use of AntConc to analyze "real language data" is highlighted. It is explained that AntConc provides "authentic language evidence". The example *während* (*during*) + *der Pandemie* (*the pandemic*) is explained in detail, focusing on the combination with the genitive. It is made clear that *während* (*during*) here functions as a preposition governing a genitive object. The example *während* (*during*) *die Untersuchung* (*the*

investigation) is explained, with a focus on the introduction of a subordinate clause. It is explained that a finite verb is used and a temporal simultaneity or opposition is shown. The paraphrase emphasizes that lecturers can illustrate the different roles of *während* (*during*) using "authentic language examples". It emphasizes that students learn the rules in the "natural context of the language". It is made clear that a differentiated understanding of German grammar is promoted. It is made clear that correct use in one's own language productions is promoted.

3. Subordinate clause with *weil* (*because*)

12	Data Korpus ...	eres Verständnis erreichen und eine bessere Punktzahl erhalten,	weil	es ein effektives Medium ist. Diese Untersuchung zielt darauf
13	Data Korpus ...	in der zweiten Position. Raja Naga Jambe wird nicht übersetzt,	weil	es ein Name ist. (Daten Nr 40) Zielsprache : Die große
14	Data Korpus ...	esem Zeitpunkt der Lehrer oder die Lehrerin das Wichtigste ist,	weil	es in den Händen der Pädagogen liegt, dass der

Fig. 6. Subordinate clause with *weil* (*because*)

- "Der Medienexperte vergab für alle Aspekte 4 (sehr gut) Noten, weil der Medienexperte alle Aspekte mit 4 (sehr gut) bewertet hat."
- "In dieser Anwendung gibt es acht Tools, die bei Lernaktivitäten verwendet werden können, weil diese Applikation auch direkt für Lernaktivitäten im Klassenzimmer verwendet werden kann, indem Quizlet mit Google Classroom verbunden wird."

Fig. 7. Subordinate clause with *weil* (*because*)

Weil (*because*) is used in the subordinate clause to answer the question *warum* (*Why*). The verb in the subordinate clause is at the end. In the corpus tool AntConc all examples of *weil* (*because*) can be found well. The examples considered here prove to be extremely valuable and useful in the context of learning German grammar, whether in formal courses or as part of individual learning processes, especially when the focus is on acquiring and deepening German grammar. The special significance of these examples lies in the fact that they do not come from textbooks or constructed scenarios, but rather were generated from a corpus created using the AntConc analysis tool. This corpus only includes language samples used by German students in Indonesia in the context of their academic work, especially their theses. The authenticity of these examples is therefore undeniable, as they represent real sentences and structures produced by students that arose in the context of academic discussions. Using these examples in class makes it possible to teach German grammar using language material that reflects the actual challenges and typical errors of students

with an Indonesian background. This creates a direct connection to the learning reality of the students and increases the relevance of the learning material to their specific needs. The analysis of these authentic examples using AntConc also offers the opportunity to identify recurring patterns and sources of error, which in turn supports the development of targeted teaching strategies and exercises. The use of examples from academic theses adds an additional dimension of academic language competence to grammar lessons, as students not only learn the grammatical rules, but also how to apply them in a formal, scientific context.

4. *Wegen (because of + genitive)*

3	Data Korpus ...	auf der Quellsprache mit der Zielsprache getan.	Wegen	der Kulturelemente von der Quellsprache wird n
4	Data Korpus ...	sen Satz macht zu einem somatischen Ausdruck,	wegen	des Gefühls der Traurigkeit in den Augen die düst
5	Data Korpus ...	zweimal im Jahr auf Reisfeldern zu arbeiten, aber	wegen	Wassermangel nie gelungen. Es wird daher für eir

Fig. 8. *Wegen (because of + genitive)*

- Wegen der Hilfe und Unterstützung von mehreren Seiten konnte die Verfasserin diese Abschlussarbeit erfolgreich erledigen.

Fig. 9. *Wegen (because of + genitive)*

Wegen (because of + genitive) is usually followed by the noun with genitive. That is the rule of German grammar. All hits from *Wegen (because of + genitive)* can be observed and learned in the corpus tool AntConc.

5. The verb *lassen (let)*

12	Data Korpus ...	nur dazu, Dinge zu bewegen, sondern lebendiger erscheinen zu	lassen	und Animation über Technik oder Effekte, sondern wird ausdru
13	Data Korpus ...	wurde, mussten sie zuerst Si Baroar in das Loch fallen	lassen	und ihn dann mit einem Ersatzpfahl überschreiben. Sutan Pulu
14	Data Korpus ...	Harmonie aufrechterhalten werden, um sich nicht scheiden zu	lassen).	Und Inai symbolisiert Loyalität (Wenn ein Paar verheiratet ist,

Fig. 10. *Lassen (let)*

- Die Schülerinnen und Schüler lassen ihrer Kreativität freien Lauf, wenn sie digitale Geschichten erstellen.
- Die Forscher lassen die Teilnehmer verschiedene Medien in ihre Geschichten integrieren.
- Mit der CapCut-Anwendung können die Nutzer ihrer Videobearbeitung Fantasie freien Lauf lassen.
- Die Feedbacks der Zuschauer lassen die Filmemacher ihre Geschichten verbessern.

Fig. 11. *Lassen (let)*

The verb *lassen (let)* can be used as the verb and the modal verb. Students can learn more about this with the help of the corpus tool AntConc, so that they know how to use *lassen (let)* as a verb and as a modal verb. Some examples of *lassen (let)* can be found in the corpus tool AntConc.

DISCUSSION

The future of grammar teaching offers enormous potential for expansion and improvement through the use of corpus analysis tools. However, to fully exploit this potential, it is essential that both lecturers and students have strong digital skills. This means that they must not only master the basic functions of a computer but should also be able to effectively use the wide range of applications and tools relevant to corpus analysis. It is well known that learning grammar is a demanding task that requires patience and perseverance. Integrating digital media into this learning process can initially pose additional challenges, as both lecturers and students must first familiarize themselves with the new technology and its specific functions. Despite these initial difficulties, the use of corpus analysis tools in grammar teaching offers the opportunity to significantly enrich the learning process and even make it entertaining in the long term. The ability to perform precise research and analyze large amounts of data within seconds allows students to explore grammatical phenomena at a speed and depth that would be difficult to achieve using traditional methods. This immediate feedback and the ability to quickly find authentic language examples can increase students' motivation and lead to a deeper understanding of grammatical structures. Digital literacy thus becomes a fundamental prerequisite for contemporary and effective grammar teaching that fully exploits the advantages of corpus linguistics.

At the beginning of the learning process, it is crucial that lecturers provide students with a sound and understandable introduction to the basics of grammar. This includes not only teaching rules, but also a detailed explanation of the relationships and functions within German grammar. A clearly defined learning

goal, which is made transparent to students from the outset, serves as a guiding thread and enables a targeted engagement with the learning material. To deepen the understanding and application of the grammatical content, authentic examples identified using the corpus analysis tool AntConc should be integrated into the lessons. These real language examples, which are taken from an extensive text corpus, illustrate the actual use of grammar in different contexts and thus promote practical understanding. They serve to connect the abstract grammatical rules with concrete, real-life applications. At the end of the lesson, a comprehensive evaluation is essential to determine the extent to which the previously defined learning goals have been achieved. This assessment allows lecturers to check the students' learning progress, identify any comprehension problems and, if necessary, adapt the lesson content or teaching methods to ensure an optimal learning experience. The evaluation also serves as feedback for the students so that they understand whether and how well they have understood the grammatical content.

CONCLUSION

In conclusion, the integration of corpus analysis tools such as AntConc into grammar teaching presents significant opportunities to enhance both the effectiveness and engagement of the learning process. However, this potential can only be fully realized when both lecturers and students possess adequate digital literacy skills. A structured approach—beginning with clear learning objectives, a solid grammatical foundation, the use of authentic corpus-based examples, and ending with comprehensive evaluations—ensures that the teaching of grammar becomes more contextual, data-driven, and learner-centered. Ultimately, digital competence and pedagogical clarity are key to making grammar instruction more relevant, interactive, and successful in the digital age.

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