

Quantitative Corpus Analysis of the Theses Papers by German Education Students of the Universitas Negeri Medan

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Abstract. The present study shows how the theses papers of 20 German Education students from the German Education study program at the Universitas Negeri Medan as the object of research have been used for corpus-based research. The aim of the study is to present corpus data, describe which grammatical functions the German Education students used most, and determine which statistical data could be displayed in the concordance application AntConc. The quantitative analysis was carried out using corpus-based methods and the concordance application AntConc by Anthony Laurence [1]. The results of quantitative data from the application AntConc were used for data analysis. 20 pieces of grammatical data were part of the analysis. The Grammar that could be found with the application for example: 1) Nominalization with *zum* 2) Subordinate clause with *während* 3) Preterite of irregular verbs 4) Sentences with *dann* and *wenn* and 5) Statements with *sehr*, *ziemlich*, *besonders*

Keywords: AntConc, German, Corpora

1 Introduction

Corpus is the description of natural language enrichment, both in terms of elements and in terms of structure, where the natural language is an authentic text or is really used by native speakers and language learners both orally and in writing. According to Zinsmeister and Andressen [1] Corpus linguistics is a scientific discipline that has scientific principles and can be used for various scientific purposes.

German Language Proficiency Level level B1 (Early Intermediate)

The level of German proficiency level B1 (Early Intermediate) must correspond to the competencies set by the GER or *Gemeinsamer Europäischer Referenzrahmen für Sprachen*, the Common European Framework of Reference for Languages [2]. According to GER, level B1 has the following competencies:

1. *Kann die Hauptpunkte verstehen, wenn klare Standardsprache verwendet wird und wenn es um vertraute Dinge aus Arbeit, Schule, Freizeit usw. geht.* What this means is that German learners with a B1 level can understand the important points, if the standard

- language is used and the themes put forward are simple themes in everyday life such as Work, School, Leisure.
2. *Kann die meisten Situationen bewältigen, denen man auf Reisen im Sprachgebiet begegnet.* German learners with a B1 level can deal with the simple situations encountered when the learner is in a German-speaking area.
 3. *Kann sich einfach und zusammenhängend über vertraute Themen und persönliche Interessengebiete äußern.* German learners at level B1 can express their opinions on simple and self-related themes.
 4. *Kann über Erfahrungen und Ereignisse berichten, Träume, Hoffnungen und Ziele beschreiben und zu Plänen und Ansichten kurze Begründungen oder Erklärungen geben.* Learners with a B1 level can tell or describe experiences or events, hopes, goals, or plans and can express reasons or provide explanations.

Grammar (Grammatic) Course

The Grammar (Grammatic) course is taught to students of German Language Education Study Program, State University of Medan in semester 1 and semester 2. This course integrates with other courses such as *Sprechen* (Speaking) or *Schreiben* (Writing). This course teaches the structure of German and binding rules in forming words, phrases, and sentences in German.

Grammar Topics

The Grammar (Grammatic) topics used for this study are as follows:

- 1) Nominalization with *zum*
- 2) Subordinate clause with *waehrend*
- 3) Preterite of irregular verbs
- 4) Sentences with *dann* and *wenn*
- 5) Statements with *sehr*, *ziemlich*, *besonders*
- 6) Conjunctions *deshalb*, *warum*, *deswegen*
- 7) Modal verbs
- 8) Subordinate clause with *weil*
- 9) Diminutive forms
- 10) Adjectives after definite articles
- 11) Adjectives after indefinite articles
- 12) Adjectives without articles
- 13) Subjunctive II
- 14) *weil* + *genitive*
- 15) double conjunction *nicht... sondern*
- 16) Participle I
- 17) Plusquamperfect
- 18) Possessive article with *genitive*
- 19) The verb *lassen*
- 20) Relative pronoun in the *genitive* case

Preliminary Study

The researcher has started research on the Corpus since 2015 which was published in 2018 under the title *Der Einsatz von Textkorpora im Deutschunterricht* [3]. Then in the same year there was also a publication with the title *Digitale Korpora im Deutschunterricht* [4]. In 2022 the researcher published a dissertation publication with the title *Der Einsatz von Textkorpora im Deutschunterricht an der Staatlichen Universität von Medan (Indonesien)*[5].

All these publications are the initial foundation for further exploration of corpus linguistics. Corpus is not just using applications that just run, but the science of Corpus can also be combined with other sciences such as Coding and Annotation, because all of these sciences are under one umbrella, namely Computational Linguistics.

The science of coding is currently one of the most important sciences in the era of digitalization. Another study that supports this research is research on *Representasi TKI Di Surat Kabar Indonesia: Kajian Wacana Dan Kognisi Melalui Studi Korpus* [6]. This study explains the portrayal of Indonesian Workers (TKI) in newspapers in Indonesia through a discourse and cognition approach that also uses the Corpus method with the AntConc application. Through this application, more than 2000 words were obtained, for example the word *Pemerintah* and it was concluded that TKI received positive words.

2 Methods

Research methods using the Corpus development method using stages from Scherer [7] can be seen in the research flow diagram (Fig. 1). The research step starts from studying the Corpus using the AntConc application, then researchers try to develop the Corpus assisted by research members until finally the Corpus that has been developed can be applied in learning and teaching German, especially for Grammar courses.

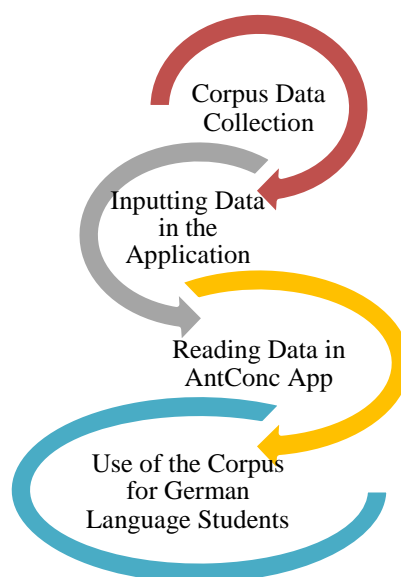


Fig. 1. Phases of Corpus Development by Scherer (2014: 36)

Research Steps and Data Analysis Techniques

The explanation of the phase of the corpus development research method with the AntConc application is as follows:

1. Corpus data collection

Corpus data is obtained from several theses that have been completed by students of the German Language Education Study Program in 2021, 2022, 2023. There are 20 (twenty) theses that will be used as data for Corpus development using the AntConc application. The number of theses can increase or decrease according to the theme of German Grammar that lecturers want to teach or study by students. This theme comes from the handbook of students and lecturers, namely the book Studio Express B1 from Cornelsen publisher written by Hermann Funk and Christina Kuhn [8]. Details about the title of the thesis used for this research will be described in Chapter V.

2. Data input in the AntConc application

Thesis that has been processed and then cleaned of things that are not related to the Corpus such as signatures and stamps that are included in the file. Images should also be removed from the file because neither images nor tables will be readable in the AntConc application. This application can only read data in the form of text in accordance with the philosophy of science about the Corpus. If there is data in the form of video or sound, it should be omitted, except for corpus research that does use sound or video.

Data in the form of twenty theses stored in twenty files will be combined into one plain text extension file that is clean and ready to be put into the AntConc application.

3. Process reading data in the AntConc application

The data that has been put into the AntConc application is ready to be read and used for German language learning and teaching.

4. Use of Corpus with AntConc Application for Grammar course.

At this phase, students and lecturers can use the application to learn German Grammar through sentences in the AntConc application derived from student theses that have been completed by students. The essence of the Corpus is text that can be read through digital media and used according to the needs of the user.

This research was conducted in Medan. The study time is from January to December 2023. The data used to develop the Corpus are words, phrases and sentences. The data source comes from student theses in 2021, 2022 and 2023. The AntConc application was developed by Dr. Laurence Anthony who is one of the professors at Waseda University, Japan. He is currently the Director of the Center for English Language Education in Science and Engineering (CELESE). The latest version of the AntConc app is version 4.2.0. This application is free of charge and can be uploaded on the page <https://www.laurenceanthony.net/software/antconc/> [9]. AntConc is an application that analyzes a collection of text put together and can also be used to analyze concordance in a sentence. This application can be run on Windows, MacOS, or Linux.

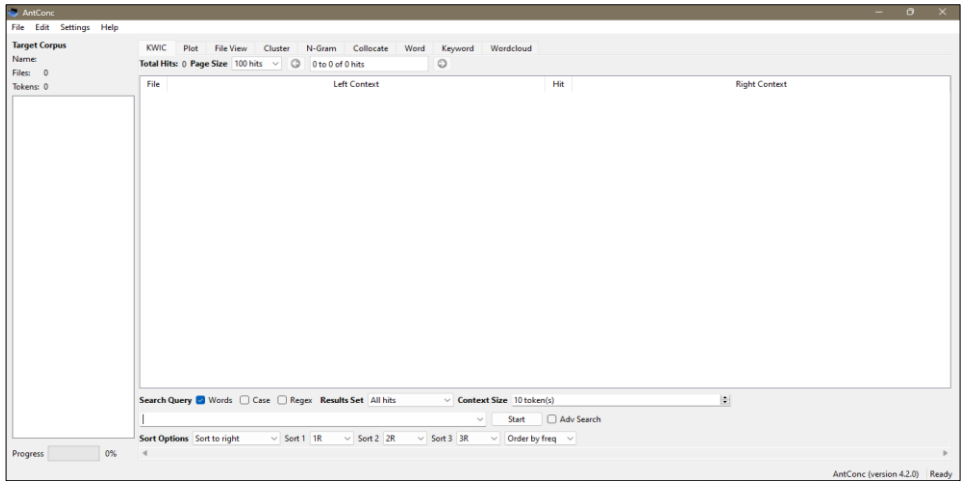


Fig. 2. AntConc Application version 4.2.0

One of the texts that can be read by this application is text inserted into a file that has a .txt extension. The application can also read files with .docx and .pdf extensions. Figure 2 is an example of a search result for the word *Analyse* (Indonesian = Analysis) in a file with the extension .pdf.

File	Left Context	Hit	Right Context
Kontrastive_An...	https://www.researchgate.net/publication/251774072 Kontrastive	Analyse	von Übersetzungskorpora: ein funktionales Modell Article · Janua
Kontrastive_An...	iginaltexten. Demzufolge sollte das Type-Token-Ver- Kontrastive	Analyse	von Übersetzungskorpora: ein funktionales Modell 313 hältnis in l
Kontrastive_An...	len in der folgenden Tabelle übersichtlich dargestellt: Kontrastive	Analyse	von Übersetzungskorpora: ein funktionales Modell 315 Textlänge
Kontrastive_An...	Dichte ist das allerdings nicht der Fall. Auch für Kontrastive	Analyse	von Übersetzungskorpora: ein funktionales Modell 317 diese univ
Kontrastive_An...	ve oder der Ausgangssprache verwendet wurden. Als Kontrastive	Analyse	von Übersetzungskorpora: ein funktionales Modell 319 besonders
Kontrastive_An...	isgedrückt werden. In Beispiel (4) wird im Englischen Kontrastive	Analyse	von Übersetzungskorpora: ein funktionales Modell 321 die Entfer
Kontrastive_An...	has requested enhancement of the downloaded file. Kontrastive	Analyse	von Übersetzungskorpora: ein funktionales Modell Silvia HANSEN
Kontrastive_An...	len, ist es notwen- dig, vor der Auszahlung eine morphologische	Analyse	auch im Wortbil- dungsbereich vorzuschalten. Levelling out: Um
Kontrastive_An...	Übersetzungen höher ausfällt als in ihren Ausgangstexten. Diese	Analyse	müßte erneut mit einem Werkzeug durchgeführt werden, das in

Fig. 3. Search results for the word *Analyse*

From the picture above it can be seen that the searched word is marked in blue. While the words before the searched word remain black. One word after the searched word is marked in red. The next word is marked in green, then the next word is marked in purple. Meanwhile, words after the purple word are again marked in black. These colors aim to show words that are neighbors/adjacent to the main word being searched whether one word to the left of the

searched word or two words to the right after the searched word. This is very useful for research about word equivalents or also about *collocation*.

3 Results and Discussion

Results

Corpus data is obtained from several theses that have been completed by students of the German Language Education Study Program in 2021, 2022, and 2023. There are 20 (twenty) theses that are used as data for Corpus development using the AntConc application. The title of the thesis used in this study is as follows:

1. Name: IMDD, Year of Thesis: 2021
Die Erstellung eines Lernmediums mit der Applikation Quizlet für das Fach Deutsch und Wortschatz
2. Name: NB, Year of Thesis: 2023
Die Erstellung einer Digital Storytelling über Sipirok für das Fach Tourismus
3. Name: MH, Year of Thesis: 2022
Die Übersetzung der Volksgeschichte "Asal Usul Minangkabau" aus West Sumatra von Indonesisch ins Deutsch
4. Name: MNE, Year of Thesis: 2021
Die Analyse der somatischen Ausdrücke im Roman Georgette Heyer „Verlobung Zu Dritt“ von Emi Ehm
5. Name: AAP, Year of Thesis: 2022
Die Erstellung der Videoanimation mit dem Thema "Schule Und Lernen" für das Niveau B1
6. Name: SM, Year of Thesis: 2021
Die Erstellung der Arbeitsblätter mit dem Konzept "Binnendifferenzierung" für das Niveau A1
7. Name: MFI, Year of Thesis: 2022
Die Entwicklung der Tourismus Website von Meulaboh
8. Name: SA, Year of Thesis: 2021
Die Erstellung einer Videoanimation mit dem Thema Berufe für die Sprechfertigkeit A1
9. Name: CHH, Year of Thesis: 2023
Die Erstellung einer Bildergeschichte über die Folklore "Si Baroar" von Mandailing Tapanuli Selatan mit der Hilfe der Applikation Webtoon für das Fach Lesen
10. Name: M, Year of Thesis: 2023
Die Analyse der Bedeutung von der Hochzeitszeremonie Tepung Tawar in der Tradition von Melayu Riau
11. Name: R, Year of Thesis: 2022
Die Erstellung einer Videoanimation zum Sprechen A1 mit dem Thema "Im Cafe" mit der Applikation Tweencraft
12. Name: WH, Year of Thesis: 2022
Die Erstellung eines interaktiven Lernmediums mit der Hilfe Nearpod für Grammatik A2 mit dem Thema "Familiengeschichten"
13. Name: APLT, Year of Thesis: 2022
Analyse der Online-Lernstrategien von dem Transfercreditprogramm an der Technischen Universität Dresden

14. Name: HIAO, Year of Thesis: 2022
Die Analyse der Übersetzungstechnik im Artikel Menjadi Vegetarian Di Kota Urban aus dem Nadi Magazin Ausgabe 26/2019
15. Name: NM, Year of Thesis: 2023
Die Erstellung eines Lernmediums mit dem Thema Orientierung für das Fach Hören A1 mit der Applikation Inshot
16. Name: SAZF, Year of Thesis: 2022
Die Erstellung eines Lernmediums mithilfe der Applikation Flip Pdf Professional zum Thema "Berlin Sehen" für das Fach Sprechen A1
17. Name: FV, Year of Thesis: 2023
Die Erstellung eines Lernmediums für das Fach Sprechen A2 mit der Hilfe von Animaker-Software
18. Name: SRA, Year of Thesis: 2022
Die Erstellung eines animierten Videos mithilfe der Applikation Flipaclip zum Thema "Körper Und Gesundheit" für das Fach Sprechen A1
19. Name: TIBB, Year of Thesis: 2022
Die Erstellung eines Bildwörterbuches zum Thema „Im Hotel“
20. Name: DB, Year of Thesis: 2021
Die Übersetzung der Volksgeschichte "Danau Sicike-Cike" vom Indonesischen ins Deutschen

The description of the year of the student thesis used for this research is as follows:

1. Year of Thesis 2021 There are five theses or 25%, which are as follows:
 - Name: IMDD, Year of Thesis: 2021
Die Erstellung eines Lernmediums mit der Applikation Quizlet für das Fach Deutsch und Wortschatz
 - Name: MNE, Year of Thesis: 2021
Die Analyse der somatischen Ausdrücke im Roman Georgette Heyer „Verlobung Zu Dritt“ von Emi Ehm
 - Name: SM, Year of Thesis: 2021, *Die Erstellung der Arbeitsblätter mit dem Konzept "Binnendifferenzierung" für das Niveau A1*
 - Name: SA, Year of Thesis: 2021, *Die Erstellung einer Videoanimation mit dem Thema Berufe für die Sprechfertigkeit A1*
 - Name: DB, Year of Thesis: 2021, *Die Übersetzung der Volksgeschichte "Danau Sicike-Cike" vom Indonesischen ins Deutschen*
2. In 2022 there are ten theses or 50%
 - b. Name: MH, Year of These: 2022, *Die Übersetzung der Volksgeschichte "Asal Usul Minangkabau" aus West Sumatra von Indonesisch ins Deutsch*
 - c. Name: AAP, Year of These: 2022, *Die Erstellung der Videoanimation mit dem Thema "Schule Und Lernen" für das Niveau B1*
 - d. Name: MFI, Year of These: 2022, *Die Entwicklung der Tourismus Website von Meulaboh*
 - e. Name: R, Year of These: 2022, *Die Erstellung einer Videoanimation zum Sprechen A1 mit dem Thema "Im Cafe" mit der Applikation Tweencraft*
 - f. Name: WH, Year of These: 2022, *Die Erstellung eines interaktiven Lernmediums mit der Hilfe Nearpod für Grammatik A2 mit dem Thema "Familiengeschichten"*
 - g. Name: APLT, Year of These: 2022, *Analyse der Online-Lernstrategien von dem Transfercreditprogramm an der Technischen Universität Dresden*

- h. Name: HIAO, Year of These: 2022, *Die Analyse der Übersetzungstechnik im Artikel Menjadi Vegetarian Di Kota Urban aus dem Nadi Magazin Ausgabe 26/2019*
 - i. Name: SAZF, Year of These: 2022, *Die Erstellung eines Lernmediums mithilfe der Applikation Flip Pdf Professional zum Thema "Berlin Sehen" für das Fach Sprechen A1*
 - j. Name: SRA, Year of These: 2022, *Die Erstellung eines animierten Videos mithilfe der Applikation Flipaclip zum Thema "Körper Und Gesundheit" für das Fach Sprechen A1*
 - k. Name: TIBB, Year of These: 2022, *Die Erstellung eines Bildwörterbuches zum Thema „Im Hotel“*
3. In 2023 there are five or 25%
- a. Name: NB, Year of These: 2023, *Die Erstellung einer Digital Storytelling über Sipirok für das Fach Tourismus*
 - b. Name: CHH, Year of These: 2023, *Die Erstellung einer Bildergeschichte über die Folklore "Si Baroar" von Mandailing Tapanuli Selatan mit der Hilfe der Applikation Webtoon für das Fach Lesen*
 - c. Name: M, Year of These: 2023, *Die Analyse der Bedeutung von der Hochzeitszeremonie Tepung Tawar in der Tradition von Melayu Riau*
 - d. Name: NM, Year of These: 2023, *Die Erstellung eines Lernmediums mit dem Thema Orientierung für das Fach Hören A1 mit der Applikation Inshot*
 - e. Name: FV, Year of Thesis: 2023
Die Erstellung eines Lernmediums für das Fach Sprechen A2 mit der Hilfe von Animaker-Software
- The thesis theme used is as follows:
1. The development theme has thirteen titles or 65%
- a. Name: IMDD, Year of These: 2021, *Die Erstellung eines Lernmediums mit der Applikation Quizlet für das Fach Deutsch und Wortschatz*
 - b. Name: NB, Year of These: 2023, *Die Erstellung einer Digital Storytelling über Sipirok für das Fach Tourismus*
 - c. Name: AAP, Year of These: 2022, *Die Erstellung der Videoanimation mit dem Thema "Schule Und Lernen" für das Niveau B1*
 - d. Name: MFI, Year of These: 2022, *Die Entwicklung der Tourismus Website von Meulaboh*
 - e. Name: SA, Year of These: 2021, *Die Erstellung einer Videoanimation mit dem Thema Berufe für die Sprechfertigkeit A1*
 - f. Name: CHH, Year of These: 2023, *Die Erstellung einer Bildergeschichte über die Folklore "Si Baroar" von Mandailing Tapanuli Selatan mit der Hilfe der Applikation Webtoon für das Fach Lesen*
 - g. Name: R, Year of These: 2022, *Die Erstellung einer Videoanimation zum Sprechen A1 mit dem Thema "Im Cafe" mit der Applikation Tweencraft*
 - h. Name: WH, Year of These: 2022, *Die Erstellung eines interaktiven Lernmediums mit der Hilfe Nearpod für Grammatik A2 mit dem Thema "Familiengeschichten"*
 - i. Name: NM, Year of These: 2023, *Die Erstellung eines Lernmediums mit dem Thema Orientierung für das Fach Hören A1 mit der Applikation Inshot*
 - j. Name: SAZF, Year of These: 2022, *Die Erstellung eines Lernmediums mithilfe der Applikation Flip Pdf Professional zum Thema "Berlin Sehen" für das Fach Sprechen A1*
 - k. Name: FV, Year of These: 2023, *Die Erstellung eines Lernmediums für das Fach Sprechen A2 mit der Hilfe von Animaker-Software*

1. Name: SRA, Year of These: 2022, *Die Erstellung eines animierten Videos mithilfe der Applikation Flipaclip zum Thema "Körper Und Gesundheit" für das Fach Sprechen A1*
- m. Name: TIBB, Year of These: 2022, *Die Erstellung eines Bildwörterbuches zum Thema „Im Hotel“*
2. There is one literary theme or 5%, namely:
Name: MNE, Year of These: 2021, *Die Analyse der somatischen Ausdrücke im Roman Georgette Heyer „Verlobung Zu Dritt“ von Emi Ehm*
3. The translation theme has three titles or 15%
 - a. Name: MH, Year of These: 2022, *Die Übersetzung der Volksgeschichte "Asal Usul Minangkabau" aus West Sumatra von Indonesisch ins Deutsch*
 - b. Name: HIAO, Year of These: 2022, *Die Analyse der Übersetzungstechnik im Artikel Menjadi Vegetarian Di Kota Urban aus dem Nadi Magazin Ausgabe 26/2019*
 - c. Name: DB, Year of These: 2021, *Die Übersetzung der Volksgeschichte "Danau Sicike-Cike" vom Indonesischen ins Deutschen*
4. For cultural themes there is one title or 5%, yaitu Name: M, Year of These: 2023, *Die Analyse der Bedeutung von der Hochzeitszeremonie Tepung Tawar in der Tradition von Melayu Riau*
5. For educational themes there is two titles or 10%
 - a. Name: SM, Year of These: 2021, *Die Erstellung der Arbeitsblätter mit dem Konzept "Binnendifferenzierung" für das Niveau A1*
 - b. Name: APLT, Year of These: 2022, *Analyse der Online-Lernstrategien von dem Transfercreditprogramm an der Technischen Universität Dresden*

The themes used for this research are not the same or there are various themes so that the data to be developed in the AntConc application is more diverse and later the research data can be used for various analyses not only in the field of German grammar but also in other fields such as writing errors, German for special purposes, and vocabulary.

Data input in the AntConc application

Thesis that has been processed and then cleaned of things that are not related to the Corpus such as signatures and stamps that are included in the file. Images are also omitted from files because images will be unreadable in the AntConc application. This application can only read data in the form of text in accordance with the philosophy of science about the Corpus. If there is data in the form of video or sound then this is also deleted, except for corpus research which does use sound or video. Data in the form of twenty theses stored in twenty files will be combined into one plain text extension file that is clean and ready to be entered into the AntConc application. The first thing to do is to download the application AntConc for example on a laptop. The version used for this study is version 4.2.0. The page used to download the AntConc application is <https://www.laurenceanthony.net/software/antconc/> .

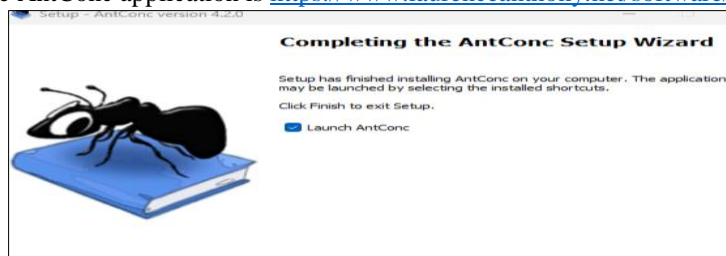


Fig. 4. Process of Download AntConc Application for Laptop

The process of reading data in the AntConc application

The data that has been entered into the AntConc application is ready to be read and used for German language learning and teaching. This data can be read by applications when using the extensions, txt, .pdf, .docx, .html, and .xml. For this study, data with the extension .txt or Plain Text were used. The application can read the file by indicating that the uploaded file has 161,777 Tokens or the total number of all words contained in the file.

Here are the results of data on the German Grammar theme that can be read by the AntConc application.

1. Nominalization with *zum* (*zum Lernen*) has 14 hits.
2. Subordinate clause with *während* has 150 hits.
3. Preterite of irregular verbs (*sein, war, gewesen*) has 94 hits. *war* was the searched term.
4. Sentences with *dann* and *wenn* have 2 hits.

To find two variables that use two words, namely *dann* and *wenn* or *wenn* and *dann*, Advanced Search is needed that uses logical or mathematical principles. In the Advanced Search column, it was originally written that the first word search was *dann* and the second word was *wenn*. These two words must appear in the finding or in one sentence. However, variations of *dann* and *wenn* are not found. This means that none of the students wrote variations of the word or in 20 theses there were no variations of the word. Finally, in the Advanced Search column, it is written that the first word search is *wenn* and the second word is *dann*. The logical principle used is *and*. It means that the first word and the second word must be found in one sentence (Fig. 5.). With this logical principle then variations can be found but only two hits or two findings.

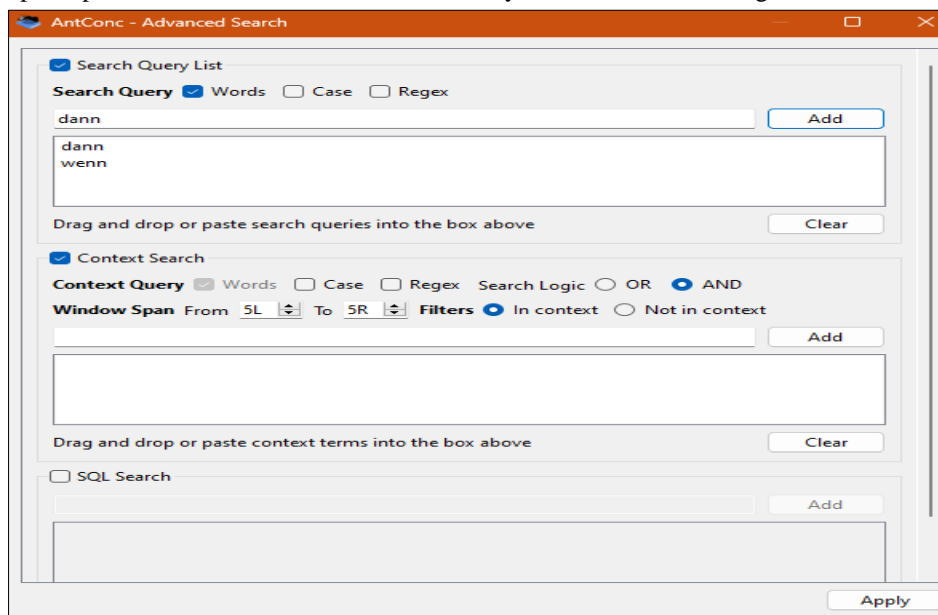


Fig. 5. Principles of Logic in Finding Hits

5. Statements with *sehr, ziemlich, besonders*

- sehr* has 241 hits, *ziemlich* has 16 hits, *besonders* has 54 hits.
6. Conjunctions *deshalb*, *warum*, *deswegen*
deshalb has 15 hits, *warum* has 11 hits, *deswegen* has 2 hits.
 7. Modal verbs
sollen has 27 hits.
 8. Subordinate clause with *weil* has 120 hits.
 9. Diminutive forms
The searched term *verringern* has 1 hit.
 10. Adjectives after definite articles
Adjective after definite articles has the searched phrase *dem Thema*. It has 0 hit. Meanwhile, a particular article without an Adjective has 1234 hits or findings. Because there are no findings for Adjectives after definite articles, finally, definite articles without adjectives are chosen because if *der* is chosen, then it will be mixed with *Genitiv Feminine* both Plural and Singular, while if *den* is chosen, it will be mixed with *Dativ Plural*.
 11. Adjectives after indefinite articles
The searched term *ein* has 20 hits.
 12. Adjectives without articles
The searched term *allgemein* has 2 hits.
 13. Subjunctive II
The searched term *könnte* has 5 hits.
 14. *wegen* + *genitive* has 6 hits.
 15. double conjunction *nicht... sondern* has 26 hits.
 16. Participle I
The searched term *lernend* has 1 hits.
 17. Plusquamperfect
The searched *hatte ...Perfekt* has 9 hits.
 18. Possessive article with genitive
The searched term *meines* has 1 hit.
 19. The verb *lassen* has 23 hits
 20. Relative pronoun in the genitive case
The searched term *dessen* has 8 hits.

Discussion

Compared to the relevant study that has been conducted, namely the research on *Representasi TKI Di Surat Kabar Indonesia: Kajian Wacana Dan Kognisi Melalui Studi Korpus* [6], the results of this study show that more than 2000 words were obtained with the application AntConc. As written, the words depend on the data that have been used for the research. This study did not research about positive and negative words, but German Grammar that could be found with the application AntConc. The data of this study are the theses of the German students, not the newspapers like the relevant study. Despite of the difference, two studies were successful and reached the aims.

4 Conclusions

What can be further investigated is the grammatical errors present in the data used for this study. This activity can be done because the data used is thesis data written by final year

students and the data may still be completely imperfect and there are German grammar errors made by students. This is something that can happen because the thesis text used is text written by foreign language learners where German is not the mother tongue. The analysis of errors in the Korpora linguistics or by the Corpus method of texts written by German learners is still not widely studied and this theme still needs to be explored further.

There are two methods used to analyze text from language learners, namely EA (Error Analysis) and CIA (Contrastive Interlanguage Analysis). These two methods are interesting to apply in qualitative research that analyzes how text errors written by German learners and teachers can be read by the Corpus application and what types of errors can be read or detected by the Corpus application or software.

Errors that can be analyzed can be divided into two, namely grammatical errors and the second is errors in logic or meaning (Semantics). Grammatical errors, especially German, include errors in choosing the right article for masculine, neutral, and feminine noun types, writing errors, word placement errors in a sentence, upper- and lower-case writing errors, Word selection errors in sentences, past, present, or future tense errors, period and comma placement errors in a sentence, preposition placement errors, main clause and subordinate clause errors, and several other grammatical errors that can be continued in the next study after this research is completed.

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