VOLUME 25, NOMOR 2, OKTOBER 2021 ISSN 1410-9883

CAKRAWALA PENDIDIKAN

FORUM KOMUNIKASI ILMIAH DAN EKSPRESI KREATIF ILMU PENDIDIKAN

Sentences and Phrases in the Book of the Theory and Practice of Online Learning by Terry Anderson

Types of Sentence in the Book of the Mathematical Theory of Relativity by Sir Arthur Stanley Eddington

Edupreneur, Alternatif Lapangan Pekerjaan bagi Mahasiswa LPTK

Pemanfaatan Software Maple pada Pembelajaran Kalkulus Integral

Syntactical Analysis on Sentence Types in the Book of Financial Accounting Theory by William R. Scott

Pembelajaran *INDAH* (*Interpretation, Discussion, Application And Horay)* pada Materi Segi Empat

Peranan UMKM dalam Menyerap Tenaga Kerja

Deskripsi Hasil Penilaian Afektif Siswa pada Materi Logaritma dengan Problem Based Learning Strategy

Pembelajaran *Visualization, Auditory, Kinesthetic* Berbasis *Macromedia Flash* pada Materi Segiempat dan Segitiga

Meningkatkan Profesionalisme Guru dalam Mewujudkan Profil Pelajar Pancasila

Pengaruh Model Pembelajaran Kooperatif Tipe *Course Review Horay* (CRH) dengan Media *Couple Card* terhadap Motivasi Belajar pada Materi Statistika

A Syntactic Analysis of Sentence Structure on "Relativity: The Special And General Theory" by Albert Einstein Using Generative Transformational Grammar

Peningkatan Hasil Belajar Matematika pada Materi Bangun Datar Segitiga Menggunakan Model Pembelajaran *Modelling The Way* Siswa Kelas VII-B MTs Miftahul Huda Sawentar-Kanigoro

Moderasi Beragama Menciptakan Toleransi dan Kerukunan Antar Umat Beragama

A Morphological Analysis of Derivational and Inflectional Morphemes in the Book of the Language Instinct: How The Mind Creates Language By Steven Pinker

Terbit 31 Oktober 2021

ISSN 1410-9883

CAKRAWALA PENDIDIKAN
Forum Komunikasi Ilmiah dan Ekspresi Kreatif Ilmu Pendidikan

Terbit dua kali setahun pada bulan April dan Oktober
Terbit pertama kali April 1999

Ketua Penyunting
Feri Huda, S.Pd., M.Pd

Wakil Ketua Penyunting
Dra. Riki Suliana RS, M.Pd
M. Khafid Irsyadi, S.T., M.Pd

Penyunting Ahli
Drs. Saiful Rifai'i, M.Pd
Drs. Miranu Triantoro, M.Pd

Penyunting Pelaksana
Dr. Drs Udin Erawanto, M.Pd
Suryanti, S.Si., M.Pd
Cicik Pramesti, S.Pd., M.Pd

Pelaksana Tata Usaha
Kristiani, S.Pd., M.Pd
Suminto & Sunardi

Alamat Penerbit/Redaksi : Universitas PGRI Adi Buana Kampus Blitar: Jl. Kalimantan No. 111 Blitar, Telp. (0342) 801493. Langganan 2 Nomor setahun Rp. 200.000,00 ditambah ongkos kirim Rp. 50.000,00.

CAKRAWALA PENDIDIKAN diterbitkan oleh Universitas PGRI Adi Buana Kampus Blitar. **Direktur Operasional** : Dra. Riki Suliana RS., M.Pd.

Penyunting menerima artikel yang belum pernah diterbitkan di media cetak yang lainnya. Syarat-syarat, format dan aturan tata tulis artikel dapat diperiksa pada *Petunjuk bagi Penulis* di sampul belakang dalam jurnal ini. Artikel yang masuk akan ditelaah oleh Tim Penyunting dan Mitra Bestari untuk dinilai kelayakannya. Tim akan melakukan perubahan tata letak dan tata bahasa yang diperlukan tanpa mengubah maksud dan isinya.

Petunjuk Penulisan Cakrawala Pendidikan

1. Artikel belum pernah diterbitkan di media cetak yang lainnya.
2. Artikel diketik dengan memperhatikan aturan tentang penggunaan tanda baca dan ejaan yang baik dan benar sesuai *Pedoman Umum Ejaan Bahasa Indonesia yang Disempurnakan (Depdikbud, 1987)*
3. Pengetikan Artikel dalam format Microsoft Word, ukuran kertas A4, spasi 1.5, jenis huruf *Times New Roman*; ukuran huruf 12. Dengan jumlah halaman; 10 – 20 halaman.
4. Artikel yang dimuat dalam Jurnal ini meliputi tulisan tentang hasil penelitian, gagasan konseptual, kajian dan aplikasi teori, tinjauan kepustakaan, dan tinjauan buku baru.
5. Artikel ditulis dalam bentuk esai, disertai judul sub bab (heading) masing-masing bagian, kecuali bagian pendahuluan yang disajikan tanpa judul sub bab. Peringkat judul sub bab dinyatakan dengan jenis huruf yang berbeda, letaknya rata tepi kiri halaman, dan tidak menggunakan nomor angka, sebagai berikut:

   PERINGKAT 1 (HURUF BESAR SEMUA TEBAL, RATA TEPI KIRI)
   Peringkat 2 (Huruf Besar-kecil Tebal, Rata Tepi Kiri)
   Peringkat 3 (*Huruf Besar-kecil Tebal, Miring, Rata Tepi Kiri*)

6. Artikel konseptual meliputi; (a) judul, (b) nama penulis, (c) abstrak dalam bahasa Indonesia dan Inggris (maksimal 200 kata), (d) kata kunci, (e) identitas penulis (tanpa gelar akademik), (f) pendahuluan yang berisi latar belakang dan tujuan atau ruang lingkup tulisan, (g) isi/pembahasan (terbagi atas sub-sub judul), (h) penutup, dan (i) daftar rujukan. Artikel hasil penelitian disajikan dengan sistematika: (a) judul, (b) nama-nama peneliti, (c) abstrak dalam bahasa Indonesia dan Inggris (maksimal 200 kata), (d) kata kunci, (e) identitas penulis (tanpa gelar akademik), (f) pendahuluan yang berisi pembahasan kepustakaan dan tujuan penelitian, (g) metode, (h) hasil, (i) pembahasan (j) kesimpulan dan saran, dan (k) daftar rujukan.
7. Daftar rujukan disajikan mengikuti tata cara seperti contoh berikut dan diurutkan secara alfabetis dan kronologis.

   Anderson, D.W., Vault, V.D., dan Dickson, C.E. 1993. *Problem and Prospects for the Decades*
   Ahead: Competency Based Teacher Education. Barkeley: McCutchan Publishing Co.
   Huda, N. 1991. *Penulisan Laporan Penelitian untuk Jurnal.* Makalah disajikan dalam Loka
   Karya Penelitian Tingkat Dasar bagi Dosen PTN dan PTS di Malang Angkatan XIV, Pusat Penelitian IKIP MALANG, Malang, 12 Juli.
   Prawoto, 1998. *Pengaruh Pengirformasian Tujuan Pembelajaran dalam Modul terhadap Hasil*
   Belajar Siswa SD PAMONG Kelas Jauh. Tesis tidak diterbitkan. Malang: FPS IKIP MALANG.
   Russel, T. 1993. An Alternative Conception: Representing Representation. Dalam P.J. Nlack & A. Lucas (Eds.) *Children's Informal Ideas in Science* (hlm. 62-84). London:Routledge.
   Sihombing, U. 2003. *Pendataan Pendidikan Berbasis Masyarakat.* http://www.puskur.or.id.Diakses pada 21 April 2006.
   Zainuddin, M.H. 1999. Meningkatkan Mutu Profesi Keguruan Indonesia. *Cakrawala Pendidikan.* 1 (1):45-52.

8. Pengiriman Artikel via email ke hudaferi@gmail.com paling lambat 3 bulan sebelum bulan penerbitan.

CAKRAWALA PENDIDIKAN

Forum Komunikasi Ilmiah dan Ekspresi Kreatif Ilmu Pendidikan

Volume 25, Nomor 2, Oktober 2021

Daftar Isi

Sentences and Phrases in the Book of the Theory and Practice of Online Learning by Terry Anderson 1
Annisa Rahmasari, Herlina Rahmawati

Types of Sentence in the Book of the Mathematical Theory of Relativity by Sir Arthur Stanley Eddington 11
Dessy Ayu Ardini

Edupreneur, Alternatif Lapangan Pekerjaan bagi Mahasiswa LPTK 26
Ekbal Santoso

Pemanfaatan Software Maple pada Pembelajaran Kalkulus Integral 35
Fitria Yunaini

Syntactical Analysis on Sentence Types in the Book of Financial Accounting Theory by William R. Scott 52
Herlina Rahmawati

Pembelajaran *INDAH* (*Interpretation, Discussion, Application And Horay)* pada Materi Segi Empat 63
Indah Nur'Aini, Riki Suliana RS, Cicik Pramesti

Peranan UMKM dalam Menyerap Tenaga Kerja 77
Kadeni

Deskripsi Hasil Penilaian Afektif Siswa pada Materi Logaritma dengan Problem Based Learning Strategy 87
Kristiani, Suryanti, Lailatuz Zahro

Pembelajaran *Visualization, Auditory, Kinesthetic* Berbasis *Macromedia Flash* pada Materi Segiempat dan Segitiga 98
Marina, Cicik Pramesti, Riki Suliana RS

Meningkatkan Profesionalisme Guru dalam Mewujudkan Profil Pelajar Pancasila 107
Miranu Triantoro

Pengaruh Model Pembelajaran Kooperatif Tipe *Course Review Horay* (CRH) dengan Media *Couple Card* terhadap Motivasi Belajar pada Materi Statistika 120
Mohamad Khafid Irsyadi, Ayu Silvi Lisvian Sari, Aminatuz Zuhriyah

A Syntactic Analysis of Sentence Structure on "Relativity: The Special And General Theory" by Albert Einstein Using Generative Transformational Grammar 131
Ratna Nurlia

Peningkatan Hasil Belajar Matematika pada Materi Bangun Datar Segitiga Menggunakan Model Pembelajaran *Modelling The Way* Siswa Kelas VII-B MTs Miftahul Huda Sawentar-Kanigoro 140
Sitta Khoirin N, Fitria Yunaini, Nita Mustikasari

Moderasi Beragama Menciptakan Toleransi dan Kerukunan Antar Umat Beragama 148
Udin Erawanto

A Morphological Analysis of Derivational and Inflectional Morphemes in the Book of the Language Instinct: How The Mind Creates Language By Steven Pinker 157
Wiratno

A SYNTACTIC ANALYSIS OF SENTENCE STRUCTURE ON "RELATIVITY: THE SPECIAL AND GENERAL THEORY" BY ALBERT EINSTEIN USING GENERATIVE TRANSFORMATIONAL GRAMMAR

Ratna Nurlia
ratnayeol123@gmail.com
Universitas PGRI Adi Buana Kampus Blitar

Abstrak: Penelitian ini adalah tentang struktur syntax buku sains Albert Einstein dengan menggunakan Generative Transformational Grammar. Buku itu berjudul Relativity: The Special and General Theory. Syntax mempelajari tentang hukum bahasa. Lalu, tujuan dari penelitian ini adalah menjelaskan tentang Generative Transformational Grammar dan menemukan tipe-tipe kalimat yang sering digunakan oleh Einstein di dalam bukunya. Penelitian ini menggunakan metode kuantitatif. Prosesnya yang petama adalah unduh terlebih dahulu buku Relativity: The Special and General Theory. Setelah mengunduh buku sains Einstein dalam bentuk buku elektronik, peneliti membaca dan memahami isi buku tersebut. Dan langkah yang terakhir, menganalisis setiap kalimat dan mendatanya menggunakan tabel lalu membuat setiap kalimat tree diagram. Setelah menganalisis setiap kalimat, peneliti menemukan tiga puluh tiga kalimat sederhana, tujuh kalimat majemuk, empat puluh enam kalimat kompleks, dan dua puluh enam kalimat gabungan antara kalimat majemuk dan kalimat kompleks. Berdasarkan penemuan dari setiap jenis kalimat, Albert Einstein menggunakan 29.45% kalimat sederhana, 6.25% kalimat majemuk, 41.1% kalimat komplex, dan 23.2% kalimat gabungan. Jadi, bisa disimpulkan bahwa Albert Einstein sering menggunakan kalimat kompleks di bukunya untuk menjelaskan teori-teorinya.

Kata Kunci: ***analisis, syntax, kalimat, klausa, Albert Einstein***

Abstract: This study is about analysing syntactic structure of Albert Einstein science book using generative transformational grammar. The book is Relativity: The Special and General Theory. Syntax is study about the sentence of language. Then, the objection of this study are explaining the generative transformational grammar and finding out the types of sentences that used the most in Einstein's book. The study is using quantitative method. The procedures are first download the Relativity: the Special and General Theory. After download the PDF of Einstein's book, the author read and understand it. The last step is analysis using table and tree diagram. After analysing it, the author find thirty three simple sentences, seven compound sentences, forty six complex sentences, and twenty six compound complex sentences. Based on the finding, Albert Einstein used 29.45% simple sentences, 6.25% compound sentences, 41.1% complex sentences, and 23,2% compound complex sentences. So, it can be concluded that Albert Einstein used complex sentences in his books to explain his theory.

Keywords: ***analysis, syntax, sentence, clause, Albert Einstein***

INTRODUCTION

Language is the most precious gift for human being; with language we can communicate with each other easily. Language is an arbitrary system that provides us a communication tool to create coordination for other. Language is the one of main factors in human revolution.

In linguistics, syntax is study about the sentence of language. Richard Nordquist (2020) explain that syntax refers to the rules that govern the ways in which words combine to form phrases, clauses, and sentences. According to the definition of syntax, syntax is one of the major components of grammar that have the large constructions sentence.

Language is also a system of arbitrary vocal symbols by means of which a social group cooperates (Lyons, 3-4). By using language, people can develop their knowledge and know something. Beside, we also use language to write, speak, and analyse, especially in science. For example, "Relativity: The Special And General Theory" by Albert Einstein.

A language consists of sentences, than a sentence consists of clauses, a clause consists of phrases, and a phrase consists of words. That is syntax. For understanding the meaning of a sentence in a language, we need to know about syntax especially if we want to learn about science, like Albert Einstein's book "Relativity: The Special and General Theory".

In real language we often encounter fragments and other sorts of unusual structures, which by the rules in texts or books are not well formed. Syntactic structure helps us understand some sentences. There are simple sentence, compound sentence, complex sentence, and compound-complex sentence. Especially when we read and understand some sentences of books, news, novels and texts, or science book like "Relativity: The Special And General Theory" by Albert Einstein that the writer use as research analyse.

For understanding some sentences like simple sentences, compound sentences, complex sentences, and compound complex sentences, we need to understand syntax. If we talked about syntax, it should include grammar. In this opportunity, we used Generative Transformational Grammar. By studying it, we could find the types of sentences that Einstein used the most in his book "Relativity: The Special and General Theory".

That is the reasons why the researcher makes a study on "A Syntactic Analysis Of Sentence Structure On "Relativity: The Special And General Theory" By Albert Einstein Using Generative Transformational Grammar". So the writer conduct a research on science structure using the theory of Generative Transformational Grammar by Noam Chomsky.

REVIEW OF RELATED LITERATURE

Theoretical Framework

Syntax

Syntax is a branch of linguistic that studies about the structure of a sentence and its elements. Some experts gave their definition about syntax. Syntax is the study of the principles and processes by which sentences are constructed in particular language. Syntactic investigation of a given language has as its goal the construction of a grammar that can be viewed as a device of some sort for producing the sentences of the language under analysis. (Noam Chomsky, 2002:11) Chomsky said that the syntax is the lesson or lecture on the principles and processes in which the sentences are arranged in a specific language. Research on the specific language syntax has a purpose of its own in which the arrangement of grammar can be seen as a tool to generate a sentence in a in language.

The Analyse of Syntactical Theory

Avram Noam Chomsky is an American linguist, philosopher, cognitive scientist, historian, political activist, and social critic. Sometimes called as "the father of modern linguistics" he developed the theory to be a modern theory with his book "Syntactic Structures". Noam Chomsky's wrote a theory about syntax in his book Syntactic Structure (2002), he said that grammar is generative because it can generate or create an infinite number of sentences. It is called Transformational since a basic or simple sentence like:

Einstein writes a science book.

Can be changed of transformed into other sentences with the same meaning

A science book is written by Einstein.

Or with different meaning

Does Einstein write a science book?

Einstein writes a science book, doesn't he?

Einstein does not write a science book.

Phrase structure trees (tree diagram) represent the framework of Transformational Generative Grammar. The trees provide information about the sentences the represent by showing the hierarchical relations between their component parts (Chomsky, 27).

Grammar

Morpheme

Morpheme is a form of language that does not contain parts which are similar to other forms, either the sound or the meaning. (Bloomfield 6). Morpheme described as the minimal linguistic sign which means that the morpheme is the smallest component of a word which contributes to its meaning (Radford, 140). Morpheme is the smallest unit of form can distinguish the meaning or significance. There are two types of morphemes, namely free morpheme and bound morpheme.

a. Free Morpheme

A free morpheme is a morpheme (or word element) that can stand alone as a word. It is also called an unbound morpheme or a free-standing morpheme. Free morphemes are considered to be base words in linguistics. Base words that can stand alone (such as “book”) are known as free bases, while bound bases (including Latin roots like “ject”) are not individual words in English. Most free morphemes can be modified by affixes to form complex words. Combining two free morphemes creates a compound word (like “mailbox”), while free morphemes modified by affixes are complex words (like “runner”).

b. Bound Morpheme

A bound morpheme is a word element that cannot stand alone as a word, including both prefixes and suffixes. Free morphemes, by contrast, can stand alone as a word and cannot be broken down further into other word elements. Attaching a bound morpheme to a free morpheme, such as by adding the prefix "re-" to the verb "start," creates a new word or at least a new form of a word, in this case, "restart."

Phrase

Radford (2009: 39) stated that phrases and sentences are built up by a series of merger operations, each of which combines a pair of constituents together to form a larger constituent. Meanwhile, Miller (2002, 21) said “the term ‘phrase’ is applied to single words and to sequences of words. This reflects the view that a single noun such as sand occupies a slot in which a phrase could occur”. He also added that words are grouped into phrases and that groupings typically bring together heads and their modifiers. Head is that certain relationships hold between words whereby one word. It controls the other words. Modifier is one or more words modify the head of a phrase.

Based on the statement above, it can simply say that phrase is words are grouped that typically bring together heads and their modifiers, head close to the maintain of words while modifier is the followers of head.

Clause

A clause is a group of words that includes a subject and a verb (A clause functions as an adjective, an adverb, or a noun.). A clause is comprised of a group of words which includes a subject and a finite verb. A clause contains only one subject and one verb. The subject of a clause can be mentioned or hidden, but the verb must be apparent and distinguishable. A clause “a group of words containing a subject and predicate and functioning as a member of a complex or compound sentence.” (Merriam-Webster)

A clause may form part of a sentence or it may be a complete sentence in itself. Clauses come in two types: main (or independent) and subordinate (or dependent), also conjunction. Every clause has at least one subject and one verb. Other characteristics will help you

distinguish one type of clause from another.

a. Main Clause (Independent Clause)

An independent clause can always stand on its own as a complete sentence. That means it has a subject and a predicate. The subject will be a noun-phrase and the predicate will be a verb-phrase and describe the subject or what the subject is doing.

b. Subordinate Clause (Dependent Clause)

A dependent clause (or subordinate clause) is a clause that cannot stand alone as a complete sentence because it does not express a complete thought. Like all clauses, a dependent clause has a subject and verb.

c. Conjunction

Conjunctions are words that link other words, phrases, or clauses together. Conjunctions allow you to form complex, elegant sentences and avoid the choppiness of multiple short sentences. Make sure that the phrases joined by conjunctions are parallel (share the same structure).

Sentences

a. Simple sentence

Betty Mattix (95) states that Simple sentence is an independent clause one complete thought that can stand-alone. A sentence is considered a simple one whenever it contains only a single clause. A simple sentence only has one subject and one predicate, or one clause. In the simple sentence, the clause called independent which meant clause can stand alone by himself.

b. Compound sentence

A compound sentence has at least two independent clauses that have related ideas. The independent clauses can be joined by a coordinating conjunction FANBOYS (For, And, Nor, But, Or, Yet, So) or by a semicolon, as you can see in the compound sentence examples below.

c. Complex sentence

Complex sentences are fascinating components of the English language. When used properly, they can add depth to our writing. Complex sentences contain an independent clause and at least one dependent clause.

d. Compound Complex Sentence

Compound-complex sentences are the most complicated sentences, as their name implies. A compound-complex sentence has at least two independent clauses and at least one dependent clause. In simple terms, an independent clause can be a sentence on its own while a dependent clause cannot.

Relativity

The theory of relativity usually encompasses two interrelated theories by Albert Einstein: special relativity and general relativity, proposed and published in 1905 and 1915, respectively. Special relativity applies to all physical phenomena in the absence of gravity. General relativity explains the law of gravitation and its relation to other forces of nature. It applies to the

cosmological and astrophysical realm, including astronomy.

Albert Einstein

Albert Einstein (14 March 1879 – 18 April 1955) was a German-born theoretical physicist, widely acknowledged to be one of the greatest physicists of all time. Einstein is known for developing the theory of relativity, but he also made important contributions to the development of the theory of quantum mechanics. Relativity and quantum mechanics are together the two pillars of modern physics. His mass–energy equivalence formula E = mc2, which arises from relativity theory, has been dubbed "the world's most famous equation". His work is also known for its influence on the philosophy of science. He received the 1921 Nobel Prize in Physics "for his services to theoretical physics, and especially for his discovery of the law of the photoelectric effect", a pivotal step in the development of quantum theory. His intellectual achievements and originality resulted in "Einstein" becoming synonymous with "genius".

Transformational Grammar

Transformational grammar is a theory of grammar that accounts for the constructions of a language by linguistic transformations and phrase structures. Also it is known as transformational-generative grammar or T-G or TGG. Following the publication of Noam Chomsky's book Syntactic Structures in 1957, transformational grammar dominated the field of linguistics for the next few decades.

RESEARCH METHOD

Research Design

The research method in this research is a quantitative. Quantitative research is the process of collecting and analyzing numerical data. Aliaga and Gunderson (2002) have described the quantitative research methods very well. According to them "Quantitative research is an inquiry into a social problem, explain phenomena by gathering numerical data that are analysed using mathematically based methods e.g. in particular statistics". According to the Creswell (2003) researcher primarily uses post-positivist approach to develop knowledge when quantitative research is selected (i.e cause and effect thinking, use of measurement and observations, and test of theories), employs strategies of inquiry such as experiments and surveys, and collects data on predetermined instruments that yield statistical data.

Source Data

The source of this analysis is the texts that are selected from Relativity: The Special And General Theory of Albert Einstein. This research focuses on the types of sentences and syntactic structure using tree diagram. The texts that analysed from Relativity: The Special And General Theory of Albert Einstein selected from 10% of the contents of Relativity: The

Special And General Theory of Albert Einstein.

Instrument

The researcher

Because this study was a descriptive quantitative, the main instrument or the primary instrument was the researcher herself. The important roles of collecting and analysing the study were conducted by the researcher herself.

The Documents

In order to answer the statement of the problems, the documents were used to identify, classify, and interpret the data. The data is Relativity: The Special And General Theory of Albert Einstein.

Tree Diagram Generator

The researcher needed the tree diagram generator online to fulfill the research about syntactic structure. The researcher was using the tree diagram generator online in website: http://mshang.ca/syntree/.

Data Collecting Procedure

First, the researcher was browsing through the internet looking for the Relativity: The Special And General Theory of Albert Einstein. Then downloaded it at http://www.f.waseda.jp/sidoli/Einstein_Relativity.pdf.

Second is reading and understanding. The activities were reading the book then understanding one by one sentence. After understanding the sentences, the researcher analyse the sentence if the sentence is a independent clause or dependent clause.

Third steps were analysing the sentences and made it into the tree diagram. The analysing were sorting the types of sentences whether the sentences is simple sentences, compound sentences, complex sentences, or compound complex sentences. Then, it is time for the researcher to analysing the syntactic structure and made it into tree diagram.

After finding the sentence types, the researcher count it. The data would count to find out the frequency and percentage. Then, counted the data in percentage using this formula:

$$P = F\ x\ \frac{100}{n}$$

The Coding

For making the analysis syntactic structure, the researcher used lexical categories to categorizing the syntactic structure. Using lexical categories was really making it easy for the researcher to analysis the sentences.

RESEARCH FINDING

Data Description

The data of this research is the sentence in the science book Relativity: The Special and General Theory by Albert Einstein. The types of sentence analysed using Chomsky's theory in his book syntactic structure, that grammar is generative, because it can generate or create an infinite number of sentences.

There are 112 sentences that the researcher analysed, which

contain syntactic structure the types of sentence into four categories: Simple sentence, Compound sentence, Complex sentence, and Compound complex sentence.

Data Analysis

Simple Sentences

The study found thirty three sentences for representing simple sentences.

Compound Sentences

There are seven sentences represent the type of compound sentence.

Complex Sentences

There are forty six sentences represent the type of complex sentence.

Compound Complex Sentences

There are twenty six sentences represent the type of complex sentence.

DISCUSSION

In this study, the researcher had been analysing four types of sentences based on syntactic analysis. There were simple sentence, compound sentence, complex sentence, and compound complex sentence. The types of sentences identified based on conjunction in the sentences, how many independent clause and dependent clause.

Then, the researcher found that in the Einstein's book used 33 (29.45 %) of simple sentences, 7 (6.25 %) of compound sentences, 46 (41.1 %) of complex sentences, and 26 (23.2 %) of compound complex sentences. Einstein mostly used complex sentences in the science book. It means that the Einstein's book contained difficult topics so Einstein needed to explain more about the science book.

Finally, the researcher found the most dominant sentences that the writer used in the science book, i.e. complex sentences. Einsein mostly used complex sentences to explain in his book.

CONCLUSIONS AND SUGGESTIONS

Conclusions

Having discussed the data, the next step is to draw conclusion of the syntactical study concerning the types of sentence of Relativity: The Special and General Theory by Albert Einstein related to the theory of syntax based on the theory transformational grammar by Noam Chomsky. It can be concluded that from Relativity: The Special and General Theory by Albert Einstein used as the samples in this thesis, the types of sentence used in the Einstein's science book are simple sentence, compound sentence, complex sentence, and compound complex sentence. Through the discussion, the researcher also found the dominant type of sentence used in the fairy tales. The complex sentence mostly appear rather than simple sentence, compound sentence, and compound complex sentence.

To give clear understanding of the conclusion, these are the types of sentence and the number of each type. The simple sentences are 33

(29.45 %), the compound sentences are 7 (6.25 %), the complex sentences are 46 (41.1%), and compound complex sentences are 26 (23.2 %).

Suggestions

Considering the importance of understanding the sentence structure especially in the study of syntax, the result of this study can be used by the teachers as reference and feedback for the effectiveness in teaching. Hopefully, the learners can more focus and understand about syntactic structure using generative trasnformational grammar. So, the teachers can be more easy in teaching syntactic analysis.

For the students, the result of the study can stimulate their ability in learning syntactic structure and feel fun for learning it. It is hoped to be able to improve their ability. The result of the study can be used as a reference for other researcher to conduct the further research dealing with the teacher's activity in supporting students learning. This research expected to be an anchor for next researchers to give more attention to improve analysis skill.

REFERENCES

Banjar, Dr. Shadia Y. Syntactic Structure. 30 April 2011. 10 May 2021 <http://wwwdrshadiabanjar.blogspot.com/>.

Chomsky, Noam. Syntactic Structure. Berlin, New York: Monton de Gruyter, 2002.

Christianto, Danin. Syntactic Analysis On Sentence Paterns in John Denver's Somh Lyrics. Yogyakarta: Sanata Dharma University, 2018.

Einstein, Albert. "Relativity: The Special and General Theory." New York: Henry Holt and Company, 1920.

Ika Dirga Sari, Hermawati Syarif, and Zul Amr. "An Analysis of Compound Sentences in Students' Writing." Advances in Social Science, Education and Humanities Research, volume 301 (2019): 341.

Junaid. "A Syntactic Analysis of the English Noun Phrase (A Study at the Fifth Semester of English Department Faculty of Teacher Training and Education University of Muhammadiyah Makassar." Perspektif: Jurnal Pengembangan Sumber Daya Insani (Juni, 2018): 317.

Kasami, T. An Efficient Recognition and Syntax Analysis Algorithm for Context Free Language. R-257. Urbana, Illingis: University of Illingis, March, 1966.

Lasnik, Howard. "Generative Grammar: celebrating the 60th anniversary of Syntactic Structures." Julho. Revista Linguistica. Vol. 13. Brazil: Revista Linguistica, 2017. 2 vol. 35.

Wikipedia. (2013, July). Wikipedia. Dipetik May 1, 2021, dari Morpheme: https://en.wikipedia.org/wiki/Morpheme

Wikipedia. (2021). Wikipedia. Dipetik May 1, 2021, dari Language: https://en.wikipedia.org/wiki/Language