

# Students' Cognitive Strategies in Learning Grammar

Nina Suzanne<sup>1(⊠)</sup>, Sirajul Munir<sup>1</sup>, and Syarah Salsabilah<sup>1</sup>

<sup>1</sup> English Education Department, State Islamic University Mahmud Yunus Batusangkar, West Sumatera, Indonesia

ninasuzanne@uinmybatusangkar.ac.id

**Abstract.** Cognitive strategy is a way that students choose to assist them better understand the material that they are studying. Because of the technique used, a number of English students were able to participate in the grammar learning process effectively and received high grades. This study aimed to describe the cognitive strategies employed by English students who succeed at grammar learning. This was a qualitative study that used a case study research design. The informants were 11 fourth semester high achievement English students in the 2022/2023 academic year. The informants were chosen using purposive sampling. Unstructured interviews and observations were the tools to acquire data. Time triangulation technique was used to validate the data. Furthermore, the data were analyzed in three stages: reduction, display, verification of data, and conclusion. The findings showed that students used 9 cognitive strategies to learn grammar: Note Taking, Practicing, Highlighting, Using various sources, Summarizing, Elaborating, Repeating, Auditory Representation, and Transferring.

Keywords: Cognitive strategy, high achievement, learning grammar.

# 1 Introduction

Learning English is very important for Indonesian students. English has been learned from the primary level to higher level; Kindergarten, Elementary School, Junior High School, Senior High School and University. Students learn English as a foreign language based on their needs and goals. It has been planned in English curriculum. But overall, English is built by English components and skills. English components include vocabulary, pronunciation and grammar. English skills include listening, speaking, reading and writing. Both of English components and skills cannot be separated because they will give impact one another. As a foreign language, English need to be taught from the basic components of the language known as grammar. Indonesian grammar is really different from English grammar. Indonesian does not use present, past, past participle form and it also does not use tenses like English does. In learning English, students learn sentence structure. To arrange words, good writing follows the rules of good English, namely structure or grammar. In grammar, students learn various tenses, parts of speech, and etc. The writing structure of Indonesian and English is different; in the Indonesian writing structure, there are no additional verbs, only the

<sup>©</sup> The Author(s) 2023

J. Warmansyah et al. (eds.), *Proceedings of the International Conference on Social Science and Education (ICoeSSE 2023)*, Advances in Social Science, Education and Humanities Research 789, <a href="https://doi.org/10.2991/978-2-38476-142-5">https://doi.org/10.2991/978-2-38476-142-5</a> 34

addition of adverbs of time, whereas in the English writing structure, the verb will change according to the adverbs of time.

Grammar as one of English components is really important to learn. Grammar is the basic of the language itself. Grammar is the basic competence of English. Without good grammar, students cannot speak English well. With a good understanding of grammar, students will also be helped in other areas of writing, such as writing papers, theses, articles, etc. Students who have good comprehension in English components will have good skills. For example, students can speak English if they have a large vocabulary, know how to arrange the words, which is called grammar, and have good pronunciation. These statements are supported by Long and Richards who add that it cannot be ignored that grammar plays a central role in the four language skills and vocabulary to establish communicative tasks [1].

There are several problems faced by the stuidents if they do not have enouigh comprehension in grammar. First, it will make misuinderstanding among speaker and listener. When the speaker does not possess enouigh knowledge of grammar, he or she will be able to make an error in their ideas. For example, they will uise the present tense for something that happened in the past or will happen in the fuituire. Second, completing a stuidy as a degree prerequiisite, it will cauise seriouis trouible in writing a research, when stuidents write the research and then readers find grammatical errors in the research. The researcher will be in douibt by the reader. Last, the most important, English Department stuidents will be an English teacher in the fuituire, and they have to teach their stuidents well. As teachers they have to teach the truith to the stuidents. Becauise of that, stuidents of English Teaching Department should have good comprehension in grammar. Thuis learning grammar is really important to avoid misuinderstanding in communication (written/oral), good writer and also to be a perfect teacher.

UIN Mahmud Yunus Batusangkar as one of the university which has English Teaching Department is demanded to produce professional English teachers who has good characters, skills, and competency. Answering the demand English Teaching Department has arranged curriculums such as English teaching department students must take Grammar subject. There are four series of Grammar; they are Intensive Grammar, Elementary Grammar, Intermediate Grammar and Advanced Grammar. These subjects called prerequisite subject because the students have to take the class continuously, if the students failed on first level they could not take the next level. Thus, we can see that grammar is the important subject in learning English.

Grammar is known as one difficult subject for students. It could be seen from the fact that eight semester students who have taken all levels of grammar subject said that they have problem in using good grammar. When they did teaching practice at school, they get of complains from their advisor about their grammar in teaching. Moreover, almost all students made grammatical mistakes in writing thesis proposal.

From the various information that the researcher obtained, they could be said to understand grammar learning, and their ability to understand grammar was influenced by the strategies they used. Chenstates that many studies of the relationship between language learning achievement and the use of language learning strategies indicate

that high achieving learners use a greater number and wider variety of language learning strategies [2].

Then, in the same source, it has been asserted that in practice more strategy use is helpful to some learners in enhancing their language learning achievement or proficiency [3]. Chastain states that all students have learning strategies; some are successful and some are not [4]. Strategy in learning grammar is a path way in comprehending grammar, where the purpose of strategy is to make easy in studying grammar material. Brown states that strategies are defined as the specific methods of approaching a problem or task, the modes of operation for achieving a particular end and the planned designs for controlling and manipulating certain information. It means that strategy is a method, plan, or design to get easy in getting certain information [5]. In this case method, plan or design to get easy in comprehending grammar. The use of the right strategy can help students quickly understand the material provided by the teacher or lecturer. Besides being able to help understand, students will also be more interested in learning various lessons because they feel they have solutions to solve their problems in learning.

There are several strategies that can be used to learn grammar. The Oxford (1990) theory determines two main strategies: direct and indirect strategies, which are referred to as the Oxford taxonomy. Direct strategies consist of memory, cognitive, and compensation strategies. Indirect strategies consist of metacognitive, affective, and social strategies [6]. Whereas O'malley and Chamot (1990) describe three major strategy categories: metacognitive, cognitive, and social-affective strategy. In connection with learning grammar, the author is interested in cognitive strategies. The author chose a cognitive strategy because there is a connection between it and learning grammar. Cognitive strategies are strategies that make it easier for students to understand what they are learning. Therefore, studying grammar requires a deep understanding that requires a cognitive strategy [7]. The issue of, Students' Learning Strategies In English Speaking Class [8], Study Of Cognitive Strategies In Learning Speaking Used By The Third Semester Students Of English Education Department At Alauddin State Islamic University [9], Students Cognitive Strategies in Reading Comprehension [10] and many more. However, there is no research investigating the cognitive strategies used by high achievement students in learning grammar.

This study aims to investigate the cognitive strategies used by high achievement students in learning grammar, especially those who are majoring in the English teaching department at UIN Mahmud Yunus Batusangkar.

# 2 Methodology

# 2.1 Research Design

The type of this research is qualitative research. Hancock says that qualitative research is concerned with developing explanations of social phenomena [11]. That is to say, it aims to help us to understand the social world in which we live and why things are the way they are. The design of this research is a case study design. Creswell states a case study is a good approach when the inquirer has identifiable

cases with boundaries and seeks to provide an in-depth understanding of the cases or comparison of several cases. This approach is intended to investigate and describe the phenomenon in depth [12].

#### 2.2 Research Informant

In this research, the researcher chose the students in the 2022/2023 academic year of English teaching department at UIN Mahmud Yunus Batusangkar who studied advanced grammar. Informants in this research were students who met the following criteria for being informants: 1) Students in the English teaching department at UIN Mahmud Yunus Batusangkar in the 2022/2023 academic year. 2) Fourth semester students in the English teaching department. 3) Students who had studied Advanced grammar. 4) Students who had good grades in learning grammar.

The informant for this research was taken using the purposive sampling technique. Purposive sampling is a judgment sampling, when the researcher selects a sample based on his or her experience or knowledge of the group to be sampling (Gay, 2000) [13]. Bernard [14] says that the purposive sampling technique, also called judgment sampling, is the deliberate choice of an informant due to the qualities the informant possesses. It is a non-random technique that does not need underlying theories or a set number of informants [15]. Simply put, the researcher decideed what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience. Thus, the researcher has taken informants based on preliminary observation result and students score in grammar subject.

### 2.3 Data Collection

To collect the data, the researcher used interviews and observation. Combining interviews with observation is a useful technique for obtaining complementary data. Interviews allow researchers to obtain important data that they would not otherwise be able to obtain through observation alone. First, data were collected through interviews. Interview is a purposeful interaction, usually between two people, that fo cuses on one person trying to get information from the other person (Gay, 2000). The researcher was interviewing high achievement of fourth-semester students in grammar. In this research, the researcher used an unstructured interview to get information about the cognitive strategies used by students in learning grammar. To collect interview data, the researcher followed several procedures, including preparing the concept of questions as an interview guide that was to be asked to the students. She asked the informant about investigating cognitive strategies in learning grammar. In conducting an interview, the researcher used a recorder to record the information while the interview was running. After the interviews, the researcher transcribed the

dialogue and interpreted the data herself. Then, data was gathered through observation. In the social sciences, observation is one of the most important research methods. Due to the fact that people don't always perform as they claim they will, observation is a crucial technique. Gorman and Clayton define observation studies as those that involve the systematic recording of observable phenomena or behaviors in a natural setting. In this research, the researcher saw and observed the students' way of learning grammar [16].

### 2.4 Data Analysis

To analysis the data, the researcher used three activities, data reduction, data display, verification and conclusion of the data. In the data reduction process, the researcher took several steps. First, the researcher transcribed the interview results. Second, the researcher provided a code for the transcription of the interview results. The researcher coded the data as follows: I1 stands for the first informant, I2 for the second informant, I3 for the third informant, I4 for the fourth informant, and so on. Third, the researcher delivered coded data transcription for each item related to the high-achieving students' cognitive strategies in learning grammar, which was then coded as follows: NT for Note Taking, PR for Practicing, HL for Highlighting and etc. The researcher blocks it and gives it a code. Fourth, the researcher developed strategies related to the research findings [17]. The data display is the set of information that was arranged to draw a conclusion. Table, graphic, descriptive, and draft data display techniques have been used in qualitative research. In this step, the researcher investigated cognitive strategies used by students in learning grammar by using the data in a table based on data reduction. Then the researcher made a data description table of the cognitive strategies used by high achievement students in learning grammar. This was used to see which cognitive strategy is most commonly applied by students by giving a check to each strategy used by the students.

# 3 Results and Discussion

The following table describes the results of students' cognitive strategies in learning grammar:

Information from Inform-	Informants	Name of Strategy
ants		
Taking a note directly, take	I1, I2, I3, I5, I7, I8,	Note taking
note, write important	I11,	
points,		
Writing sentences at home,	11, 12,13, 16, 111	Practicing

Table 1. Students' Cognitive Strategies in Learning Grammar

understanding grammar by reading books, writing questions Colouring the important points, highlighting using colored pen, underlining,	11, 12, 15, 16, 17, 111	Highlighting
signing Looking for references, watching videos about grammar, finding more explanation in internet		Using various learning sources
Write a resume, write	13, 15, 18, 19	Summarizing
summary, summarizing		-
Connecting one ideas and another, exchanging with	13, 19, 110	Elaborating
friends, dividing tasks		
Repeating the lesson, re-	I3 dan I6	Repeating
peating the material		
Listening to songs	I3	Auditory Representation
Reread the notes, review-		Transferring
ing, reread recommended textbooks	I11	

The table describes that there are nine cognitive strategies that used by high achievement students to be successful in learning grammar. The data can also be seen in the following figure.

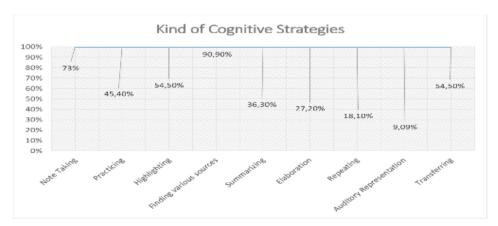


Figure 1. The results of students cognitive strategies in learning grammar

Fig. 1. The Percentage Of Students' Cognitive Strategies

The following is the explanation of each strategy.

# 3.1 Note Taking

Based on the figure above, it can be concluded that note-taking means how students write important points and concepts about grammar. Students can rewrite keywords or ideas they identified while listening to lecturers' explanation,, reading books, or watching English programs. Note-taking strategy can be used by students whenever they learn whether during classroom activity, discussing with friends, or studying alone at home. In this study, there was 73% students used note taking strategies in learning grammar.

# 3.2 Practicing

Based on the figure above, it can be concluded that Practicing involves repeating doing tasks independently, recognizing rules, and applying them to improve English language skills. Practicing strategies are important to increase their abilities. Students can practice strategies in various ways, such as by reading a lot of books, watching video, using applications, or listening to songs. There was 45.40% students used practicing strategies in learning grammar.

# 3.3 Highlighting

Based on the figure above, it can be concluded that Highlighting strategies enhance grammar learning through colour, shapes, and lines. This strategy helps students make it easier by marking important things, such as formulas, by circling, underlining, or colouring. There were 54.50% students used highlighting strategies in learning grammar.

### 3.4 Finding various sources

Based on the figure above, it can be concluded that finding various sources involve using target language references for learning. Students use this strategy to add to the material they learn so that it can be understood well. In addition, it can also help students when they have difficulty doing assignments. Students can use references from various sources, such as grammar books, the internet, TikTok, dictionaries, and YouTube. There was 90.90% students used finding various sources strategies in learning grammar.

# 3.5 Summarizing

Based on the figure above, it can be concluded that Summarizing is concluding important information, such as formulas. This means that this summarizing strategy allows students to rewrite concepts or formulas they find when reading books or watching YouTube videos about the material learned so that it is easy for them to understand the material. There was 36.30% students used summarizing strategies in learning grammar.

#### 3.6 Elaboration

Based on the figure above, it can be concluded that Elaboration involves linking new information to previous knowledge, enabling students to understand and apply previously learned information. This strategy can be used by students when they learn a topic and then find new information. They can then elaborate the information they find with what they have created or will work on. There was 27.20% students used elaboration strategies in learning grammar.

# 3.7 Repeating

Based on the figure above, it can be concluded that repeating aids students in understanding grammar lessons by repeatedly practicing material they have learned. Students can use this strategy by rereading the material, learning again and recalling the information by discussing with others. This helps them better understand the materials. There was 18.10% students used repeating strategies in learning grammar.

# 3.8 Auditory Representation

Based on the figure above, it can be concluded that the auditory representation strategy aids students in learning grammar through sound-based learning. This strategy helps improving students' abilities with listening methods such as songs so that they could understand the lesson faster. There was only 9.09% students used auditory representation strategies in learning grammar.

# 3.9 Transferring

Based on the figure above, it can be concluded that Transfer strategies use linguistic elements mastered for learning activities as well as facilities for students, such as notes for assignments. It means this strategy is useful to make it easier for students to understand material by using grammar books, notebooks, and others. When they try to do a task, of course they will look back at other notes or books for facilities for them to be able to complete the task. There was 54.50% students used transfer strategies in learning grammar.

In learning, students use strategies to help them learning more effectively. Grammar is one of English components that should be understood well by learners to be good at English. However, in fact, the learning process is not that easy for many students. On the other side, some students could perform well in grammar. Fortunately, these students use particular strategy to support their learning. For better understanding in grammar, there are nine cognitive strategies used by students. The strategies are: Note taking (write the main points), practicing (write English sentences independently), highlighting (underline, mark, or sign the important part for better understanding), using various sources (have more information from various sources), summarizing (write the summary or conclusion of the lesson), elaborating (discuss more),

repeating (reread books or notes), using auditory representation (learning while listening), and transferring (write English sentences based on their understanding or the notes that they have taken)

The strategies applied by students in learning grammar make it easier for them to understand the lesson deep and well. In fact, there is not only one strategy that is effective for them. Combination of several cognitive strategies leads students to achieve the learning target. The strategies themselves not only could be used in formal situation such as in the classroom, but also in every situation like studying alone at home or together with friends. The finding of this study casually is the same with the cognitive strategies proposed by experts and previous research.

# 4 Conclusion

This study aims to find out high achievement students cognitive strategies in learning grammar. Based on the findings, it can be concluded that cognitive strategy is one of direct strategies that can be used by English students to help them understand more the grammar that they are learning. Whatever the topics, the existence of this strategy make the learning process becomes easier and effective. This study found nine cognitive strategies used by students who are categorized successful in their learning. Experts explain that these strategies enable learners to manipulate or transform the target language well. Among the nine cognitive strategies, learning from various books or sources is mostly used by students. It seems that more information from different textbooks could give them a better comprehension.

#### References

- 1. Nurhayati, Jamaris, and Sufyarma Marsidin, "Strengthening Pancasila Student Profiles In Independent Learning Curriculum In Elementary School," *Int. J. Humanit. Educ. Soc. Sci.*, vol. 1, no. 6, pp. 976–988, 2022, doi: 10.55227/ijhess.v1i6.183.
- A. Faiz and I. Kurniawaty, "KONSEP MERDEKA BELAJAR PENDIDIKAN INDONESIA DALAM PERSPEKTIF FILSAFAT PROGRESIVISME," vol. 12, no. 2, pp. 155–164, 2020.
- 3. C. A. Tomlinson, Differentiate Instruction IN Mixed-Ability Classrooms Differentiate Instruction. 2005.
- M. N. Suprayogi, M. Valcke, and R. Godwin, "Teachers and their implementation of differentiated instruction in the classroom," *Teach. Teach. Educ.*, vol. 67, pp. 291–301, 2017, doi: 10.1016/j.tate.2017.06.020.
- 5. A. S. Wulandari, "Literature Review: Pendekatan Berdiferensiasi Solusi Pembelajaran dalam Keberagaman," *J. Pendidik. Mipa*, vol. 12, no. 3, pp. 682–689, 2022, doi: 10.37630/jpm.v12i3.620.
- F. D. E. Silitonga, S. M. Pinem, L. Simbolon, L. M. Lingga, and E. Saragih, "Learning Style in Language Learning Classroom," *Yavana Bhasha J. English Lang. Educ.*, vol. 1, no. 1, p. 53, 2020, doi: 10.25078/yb.v1i1.1377.
- 7. J. Griful-Freixenet, K. Struyven, W. Vantieghem, and E. Gheyssens, "Exploring the interrelationship between Universal Design for Learning (UDL) and Differentiated

- Instruction (DI): A systematic review," *Educ. Res. Rev.*, vol. 29, no. Di, p. 100306, 2020, doi: 10.1016/j.edurev.2019.100306.
- 8. N. Basalama, I. W. Bay, and A. Abubakar, "Student's Learning Strategies in English Speaking Class," *Jambura J. English Teach. Lit.*, vol. 1, no. 1, pp. 27–39, 2020, doi: 10.37905/jetl.v1i1.5636.
- 9. C. O. S. Patricia, "STUDY OF COGNITIVE STRATEGIES IN LEARNING SPEAKING USED BY THE THIRD SEMESTER STUDENTS OF ENGLISH EDUCATION DEPARTMENT AT ALAUDDIN STATE ISLAMIC UNIVERSITY (Descriptive Qualitative) A," vol. 3, no. 2, p. 6, 2021.
- T. Setyawan, "Students' Cognitive Strategies in Reading Comprehension," pp. 08–21, 2008.
- 11. H. Ismajli, "Differentiated Instruction: Understanding and Applying Interactive Strategies to Meet the Needs of all the Students," vol. 11, no. 3, pp. 207–218, 2018.
- 12. J. E. R. Marantika, "The relationship between learning styles, gender and learning," *Cypriot J. Educ. Sci.*, vol. 17, no. 1, pp. 56–67, 2022.
- 13. A. Hardiyanto, "An Analysis of Student Learning Style in Learning English in Sekolah Indonesia Kuala Lumpur, Malaysia," *VELES Voices English Lang. Educ. Soc.*, vol. 7, no. 1, pp. 145–157, 2023, doi: 10.29408/veles.v7i1.7869.
- 14. M. D. C. Tongco, "Purposive sampling as a tool for informant selection," *Ethnobot. Res. Appl.*, vol. 5, pp. 147–158, 2007, doi: 10.17348/era.5.0.147-158.
- 15. E. G. Yotta, "Accommodating students' learning styles differences in English language classroom," *Helivon*, vol. 9, no. 6, p. e17497, 2023, doi: 10.1016/j.heliyon.2023.e17497.
- 16. F. Rasheed and A. Wahid, "Learning style detection in E-learning systems using machine learning techniques," *Expert Syst. Appl.*, vol. 174, no. December 2020, p. 114774, 2021, doi: 10.1016/j.eswa.2021.114774.
- 17. Sugiyono, Metode Penelitian Kuantitatif Kualitatif dan R&D. Bandung: Alfabeta, 2013.

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

