Students' Cognitive Difficulties in Mastering the Nahwu Rules: A Descriptive Study at SMP IT Al Farabi Bilingual Scool

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ABSTRACT

This research aims to analyze and describe the cognitive difficulties of students in mastering the nahwu method. This study is a dismissive qualitative research by describing the phenomenon of cognitive difficulties without manipulation and making comparisons in other schools. The data of this study was taken using 3 techniques, namely documentation, questionnaire, and semi-structural interviews. The subjects of this study are junior high school students. The results of the analysis of students' cognitive difficulties in mastering the knowledge of nahwu methods are: (1) difficulty understanding the basic concepts of nahwu, (2) grammatical, (3), weak long-term memory, (4) limited vocabulary, (5) and weak metacognitive strategies, (6) and low transfer of knowledge into a new context The results of the analysis show that the cognitive difficulties are understanding the basic concepts of nahwu/grammatical, weak memory, limitations of vocabulary, weak metacognitive strategies and low transfer of knowledge into new contexts. And there are five main factors that affect these difficulties, namely curriculum, students, learning methods, learning facilities and technology.

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Introduction

Learning the nahwu method, the success in memorizing and grouping the methods is not determined by how much material is delivered and grouped according to the method but to what extent the students are able to internalize the concepts of the method. The crucial challenge in mastering this is the problem of cognitive difficulties. Cognitive difficulties are obstacles that occur when students experience limitations in understanding, processing and internalizing these methods into a structure that has been memorized and arranged according to the method.

The cognitive difficulties experienced by students often occur evocatively, causing emotional learning to be very low to the material and continuous, especially in chapters that require logical rigor in a structured manner and high abstraction such as nahwu.

The science of nahwu is a science of subjects with which Arabic words can be known both in terms of I'rab and bina' (Sa'adah, Nailis, 2019). As a complex grammar, students need disciplined training and repetition because learning nahwu is not just memorizing, but he must understand the relationship between hidden elements of language, the grammatical aspect (Nahwu) of Arabic has a very rich and structured concept, but is often considered difficult to understand by beginner students (Syagif, 2024). This is meticulous that high cognitive difficulties of students can slow down the process of internalizing nahwu rules and cause misconceptions that ultimately reduce students' motivation to learn.

The reality of cognitive burden is very relevant in various educational institutions, including at SMP IT Al Farabi Bilingual School. As one of the schools that applies its special bilingual curriculum to the mastery of the Arabic language, the challenge of understanding nahwu is an interesting icon to study. Preliminary data showed that some students had serious cognitive difficulties. Basically, all languages are inseparable from three interrelated language elements. The three elements are sound, structure, and meaning. Likewise with Arabic, in learning Arabic we should know and pay attention to the three elements of language, namely: *ashwat, qowa'id, and ma'na* (Ana Wahyuning Sar, 2017).

This difficulty arises as a result of various factors, student factors, curriculum, teaching methods and so on. Learning the nahwu method is important because of the basic knowledge of the Arabic language. This is researched because of difficulties in mastering nahwu due to students' lack of interest in learning or from educators with low professionalism or teaching material factors, namely the books used are not fully studied and the very limited learning time factor (Syagif, 2024).

Thus, this research will be described in a descriptive form. The descriptive approach was chosen in this study to explore how the learning experience of students is not limited to measuring the level of ability but to understand the problems during the learning process by describing them massively and holistically without making comparisons with other schools. This is in line with the definition of the descriptive method is research that is conducted to describe independent variables, either on only one or more variables (stand-alone variables) without making comparisons and looking for that variable with other variables (Siti Kaenah Asri, 2022). Through this research, it is able to make a real contribution to the improvement of teaching strategies that are cognitively adjusted to students. This research is very important so that students' cognitive difficulties in mastering the nahwu method and no longer make perception a difficult lesson but a good path in mastering the Arabic language.

Methods

Based on the problem to be researched, this study uses a type of qualitative research that is descriptive in nature by describing thoroughly the phenomenon of difficulties in mastering the nahwu method without manipulation and making comparisons in other schools. The selection of descriptive research methods aims to present a concrete picture related to the social setting or research conducted to explore and clarify. This is in accordance with the understanding that descriptive research is a method of researching the status of a human group, a subject, a condition, a thought system or events in the present (Fitria Widiyani Roosinda, 2021).

In the context of this study, only describing the phenomenon of the level of cognitive difficulty of students with the main purpose is not to compare or test how cause and effect but to document and provide a description of the conditions that arise in the field, with the choice of this method being very in accordance with the purpose of the research, This shows that descriptive research is centered on describing the nature of the demographic segment or research subject but does not focus on why the phenomenon is happen. The location of this research is at Al Farabi Bilingual School IT Junior High School, and the planning of this research is approximately for one week.

This study uses a descriptive quantitative approach, because it processes data with a simple statistical method to map how the level of students' cognitive difficulty in nahwu learning. In this study, it will be defined as a perimeter data source, namely a data source that directly provides data to the data collector or is obtained directly from the object to be studied (respondents) (Muhamad Bisri Ihwan, 2022). This quantitative approach is important because the data that will be processed with statistical methods will measure the extent of cognitive difficulty through its indicators. Data analysis will be complemented by qualitative interpretation, the researcher also collects data in the form of test questionnaires and direct interview interviews with students which are filled out directly by students in grade XI of SMP IT Al Farabi Bilingual School in order to obtain valid and more detailed contextual results. This is in line with (Rachel C. Shelton, 2022) that qualitative research typically has a smaller sample size than quantitative research; the specific study needs are a function of the research objectives, the research framework, and the data collection method.

The subject of this study is grade IX students of SMP IT Al Farabi Bilingual School, and as a school that implements the Arabic language curriculum, of course, which studies nahwu methods starting from grades VII-IX, sampling is carried out purposively to get students relevant to the focus of the research and the subject as many as 15 students are selected by considering at the beginning before the researcher directly goes into the field with the concept that the 15 people represent the population aforementioned. And the object of the research is how cognitive difficulties include

students' mental obstacles in understanding the methods and internalizing the nahwu methods.

The data sources of this study include primary data that are obtained directly by the researcher through research instruments, namely test results, observation sheets, questionnaires and semi-structural interviews, and previous research on cognitive load with the literature review is a descriptive study, cognitive theory and nahwu teaching strategy while still focusing on descriptive analysis. The analysis used is in the form of a systematic, factual and accurate description of the facts, properties and relationships between the phenomena being investigated, namely about the learning methods of nahwu (Bintang Rosada, 2018).

Techniques in research data collection involve several elements to obtain comprehensive information, Proper data collection techniques and valid research instruments play a role in producing accurate and reliable data. In research, there are two main approaches that are often used, namely qualitative research and quantitative research. Qualitative research aims to understand phenomena in depth through interpretation and descriptive analysis, while quantitative research aims to measure and complex calculation techniques, some people prefer to think of it as engineering science rather than social science (M Teguh Saefuddin, 2023).

From this study, the researcher uses qualitative techniques through descriptive analysis to find out the cognitive phenomena of students in terms of difficulty mastering the nahwu rules. The methods are: (1) Documentation, which is collecting data in the form of learning outcome documents. And researchers try to analyze the data, process the data, and draw conclusions and describe the cognitive difficulties of the students. In addition, the researcher will also analyze the data using two methods, namely; inductive and deductive.   (2) questionnaire, this questionnaire is prepared on a likert scale to identify specific aspects of students' cognitive difficulties, (3) semi-structural interviews, intense interviews with several students directly to clarify and explore the causes of difficulties and obtain subjective views related to difficulties in mastering nahwu, after interviews with students the researcher will also interview the teacher regarding how the teacher feels about the ability and Teaching strategies are carried out to obtain information opportunities that can be used as evaluation material.

Result

As a result of the analysis of this research, the author can describe that students find difficulties in mastering nahwu methods which are caused by several yal, namely: (1) difficulty understanding the basic concept of nahwu, (2) grammatical, (3), weak long-term memory, (4) vocabulary limitations, (5) weak metacognitive strategies, (6) and low transfer of knowledge into new contexts. The first cognitive difficulty is the difficulty in understanding the basic concept of nahwu. In the context of its meaning, nahwu is a

branch of science that studies the rules in Arabic, especially i'rab (change in the final word due to position in a sentence). The purpose of nahwu science is to anticipate reading, writing and grammatical errors in learning languages. Learning occurs when there is a change in behavior that occurs based on the S-R (Stimulus-Response) paradigm, which is a process that provides a certain response to events that come from outside (Abd Wahab Rosyidi, 2011). From the explanation, the mistake of students in learning the method is not repeating the nahwu method lesson before the questions and tests are given.

Second, is the difficulty in internalizing the nahwu method into the grammar of the Arabic language. Grammatical meaning is the meaning of a word after the word has undergone a process of grammarization/change, such as affixing, repetition, or compounding according to the context of the situation such as place, time and usage. Third, weak long-term memory, this is very much needed for memory or strong memory in learning. Learning is a process of entering new information, the results of which can be seen from behavioral development. As a process, learning is influenced by many factors, one of the important factors that affects learning is memory (Baharun, 2018).

Fourth, the limitation of vocabulary will also affect difficulties and stagnation in students, because they will never be able to master the nahwu method without having a broad vocabulary to interpret and internalize all nahwu methods into a language that is neatly arranged linguistically. This is in accordance with (Rifai'l; 2021) Linguistic theory (grammar), according to him, is only part of the more general theory that brings together communication with culture. In other words, the definition of competence is not only related to grammatical rules but needs to be expanded to include "contextual appropriation" because there are rules of language use without which grammatical rules will be useless (Rifa'i, 2021). However, language proficiency will not be achieved if grammar is not arranged according to the method.

Fifth, the weakness of metacognitive strategies or monitoring, conceptualizing conceptualized thought processes, this nahwu method is a basic concept for people who want to be proficient in language. Methodologically, the language learning strategy itself involves three aspects, namely cognitive power (the ability to absorb, store, and retrieve information from the mind), metacognitive (the ability to monitor thought processes), and social/affective factors (the ability to cooperate with others and control emotions) (Mochamad Syaifudin, 2022). From this understanding that students are not aware of their own mistakes, when studying mubtada and khobar, students already know what mubtada is and what is khobar but when assigning assignments where to mubtada and where to khobar, students do not know it. This is because it does not recheck understanding, and monitors the process of that knowledge in a new context.

Sixth, the low transfer of knowledge into a new context. Based on the results of the analysis, students who have been equipped with nahwu materials such as the book of matan jurumiyyah starting from the kalam chapter to the makhfudhatil asma' chapter are found to have difficulties in internalizing nahwu methods, this becomes a complicated burden to understand, caused by unusual factors in evaluating learning at school. Despite all those difficulties, there are several factors that cause it. The factors are: (1) curriculum factors, (2) students, (3) teaching methods, (4) learning facilities factors, (5) technological factors. The results of the analysis carried out in the field show that the first cognitive difficulty of students is the curriculum factor. This is crucial because cognitive ability is the most important assessment in the learning process. Furthermore, this cognitive ability can be influenced by several factors, both internal and external, of students (Hilda Khoerunisa, 2024). As many as 8 out of 15 students, 70% of them stated that the nahwu material is too complicated and always requires a memorization method as Ariqah nabila said that "learning nahwu is memorized all the time and yan in memorization is consecutive because there are many structures and divisions, so it is difficult to remember", from the statement that the curriculum that is less adaptive or adapts to the needs of students can cause difficulties in understanding and mastering the methods in accordance with the opinion (Andi Arif Pamessangi, 2019) A poor curriculum affects the way students learn. Keep in mind that the current instructional system requires a teaching and learning process that is concerned with the needs of students, educators need to explore or pay attention to students well, must have detailed planning, in order to serve students learning effectively (Andi Arif Pamessangi, 2019). Students expect the curriculum to be adjusted to their friends in the classroom without anyone leaving the material, whether it is adjusted at home or assignments that are adjusted after school, because if the curriculum is the same, it will hinder the focus of other students.

Apart from the curriculum factor, students' cognitive difficulties in mastering nahwu are also inseparable from the factors of the students themselves, from the results of the questionnaire analysis given to the students, it is illustrated that 7 out of 15 students experience difficulties with a score of 51% due to lack of understanding and internalization in an integrated and structured manner. This is due to the lack of enthusiasm for learning, the lagging behind the material conveyed in previous lessons. Judging from the factors of students as mentioned (Feni Farida Payon, 2021), physiological factors include physical states (senses) and physical states and psychological factors which include attention, responses, and memories (Feni Farida Payon, 2021). The physiological factors of students in the form of the five senses are all fine, no disabilities are found and so on so that in the learning process they are very supportive of their activity. And the physiological factors, both from attention and students' responses, are able in terms of responding to each other's answers, asking questions, and responding to each other. However, some students after a week later

many students forget to cause delays in understanding and synchronizing new material, so emphasis is needed on students regarding the repetition of previous material before the new material is delivered.

Apart from the student factor, the educator factor greatly affects the effective experience of students, this was found in the form of the results of semi-structural interviews by researchers that educators really want students to memorize each material even though they are not understood, educators also do not provide questions of the material before the new material. The next is the learning facility factor, where the Al Farabi Bilingual School IT Junior High School has not provided subject matter that already has a translation of nahwu methods, so students need lessons on nahwu methods that have translations because they are still not able to translate Arabic from nahwu itself. The last is the technology factor, that 10 out of 15 students have not been able to use technology properly and correctly, especially searching and digging up nahwu material from google, or other applications, this affects the reasoning power of students who are exposed to information that causes confusion. Although technology is currently developing rapidly, it is changing learning methods as said by (Dodi Robiansyah, 2022). Technology in education can transform conventional learning into unconventional ways. Based on the results of the researcher's analysis, students of SMP It Al Farabi Bilingual School have not been trained and educated in terms of technology, thus the difficulty of students in mastering nahwu decreases due to the independent factor, integration in reading books and asking questions with each other is reduced until the students' experience and memory are not intense.

Discussion

This study explains that students of SMP It Al Farabi Bilingual School experience several cognitive difficulties in mastering nahwu methods, namely: (1) difficulty understanding the basic concept of nahwu, (2) grammatical, (3), weak long-term memory, (4) vocabulary limitations, (5) weak metacognitive strategies, (6) and low transfer of knowledge into new contexts. This indicates problems in the way students think and learn in depth. The first is the difficulty of understanding the basic concept of nahwu. Nahwu is a branch of science that studies the rules in Arabic, especially i'rab (change in the end of a word due to position in a sentence).

Second, is the difficulty in internalizing the nahwu method into the grammar of the Arabic language. Grammatical meaning is the meaning of a word after the word has undergone a process of grammarization/change, such as affixing, repetition, or compounding according to the context of the situation such as place, time and usage. Third, weak long-term memory, this is very much needed for memory or strong memory in learning. Learning is a process of entering new information, the results of which can be seen from behavioral development.

Fourth, the limitation of vocabulary will also affect difficulties and stagnation in students, because they will never be able to master the nahwu method without having a broad vocabulary to interpret and internalize all nahwu methods into a language that is neatly arranged linguistically.

Fifth, the weakness of metacognitive strategies or monitoring, conceptualizing conceptualized thought processes, this nahwu method is a basic concept for people who want to be proficient in language. Students are not aware of their own mistakes, when studying mubtada and khobar, students already know what mubtada is and what is khobar but when assigning assignments where mubtada and where khobar, students do not know it. This is because it does not recheck understanding, and monitors the process of that knowledge in a new context. Sixth, the low transfer of knowledge into a new context. Based on the results of the analysis, students who have been equipped with nahwu materials such as the book of matan jurumiyyah starting from the kalam chapter to the makhfudhatil asma' chapter are found to have difficulties in internalizing nahwu methods, this becomes a complicated burden to understand, caused by unusual factors in evaluating learning at school.

From these difficulties, there are several factors that cause it, namely: Factors of cognitive difficulties of students, namely: (1) curriculum factors, (2) students, (3) teaching methods, (4) learning facilities factors (5) technological factors. The results of the analysis carried out in the field show that the first cognitive difficulty of students is the curriculum factor. This is crucial because cognitive ability is the most important assessment in the learning process. As many as 8 out of 15 students, 70% of them stated that the nahwu material is too complicated and always requires a memorization method as Ariqah nabila said that "learning nahwu is memorized all the time and yan in memorization is consecutive because of the many structures and divisions, so it is difficult to remember", from the statement that the curriculum that is less adaptive or adapts to the needs of students can cause difficulties in understanding and mastering the methods.

Apart from the curriculum factor, students' cognitive difficulties in mastering nahwu are also inseparable from the factors of the students themselves, from the results of the questionnaire analysis given to the students, it is illustrated that 7 out of 15 students experience difficulties with a score of 51% due to lack of understanding and internalization in an integrated and structured manner. This is due to the lack of enthusiasm for learning, the lagging behind the material conveyed in previous lessons. When viewed from the physiological factors of students in the form of five senses, everything is fine, no disabilities are found and so on so that in the learning process it is very supportive of their activity. And the physiological factors, both from attention and students' responses, are able in terms of responding to each other's answers, asking questions, and responding to each other. However, some students after a week later

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Conclusion

The conclusion of this study is that the cognitive difficulties of students in mastering the knowledge of nahwu methods are: (1) difficulty understanding the basic concepts of nahwu, (2) grammatical, (3), weak long-term memory, (4) limited vocabulary, (5) weak metacognitive strategies, (6) and low transfer of knowledge into new contexts. The first cognitive difficulty is the difficulty in understanding the basic concept of nahwu. From these difficulties, there are several factors that cause it, namely: Factors of cognitive difficulties of students, namely: (1) curriculum factors, (2) students, (3) teaching methods, (4) learning facilities factors (5) technological factors.

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