Mnemonic Techniques in Slow Learner Student Learning in Elementary School

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Abstract: This study aims to identify various kinds of mnemonic techniques found in the literature study. This type of research uses a qualitative research type with a literature review type. This study analyzes twenty journal articles both nationally and internationally by searching from google scholar whose research results found the six highest mnemonic, the results include slow learners, namely acronyms, acrobatics (first letter), chungking, loci, rhyme and keywords. The six techniques are not only often used in learning but can also improve the cognitive abilities of students, especially slow learner students both in memory and understanding. The purpose of the mnemonic technique is to help teachers in teaching students in elementary schools in the process of remembering and understanding learning.
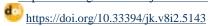
Introduction

Mnemonic comes from the ancient Yunan mitodopology, the name of the goddess "Mnemosyne" which means goddess of memory. Verdianingsih (2020) defines mnemonics as a way of helping memory or memory. Heryani, et al (2021) mnemonic are closely related to cognitive abilities, namely imagination and association. In line with that Akpan, et al (2021) stated that mnemonic consists of two processes, namely coding and remembering to be able to reconstruct and connect the information that has been obtained. Mnemonic is a way to remember every event that has been experienced (Farrokh, et al. 2021). In other words, mnemonic is a set of methods or ways to improve memory skills through the process of coding, remembering, and associating. Mnemonic Learning is a learning strategy that can help the brain's nervous system work in the learning process. Purnamasari, (2018) argues that mnemonic strategies help memory of something experienced or learned by using a specific password. That is, the storage of any information in the structure of the human brain will be easier to remember if using encoding of what is experienced or learned. Therefore, memory in the brain plays an important role in the storage of information referred to as cognitive processes. The role of memory consists of three stages, namely encoding, storing, and recalling memories (Rahmawati, 2019). Therefore, the process of encoding each information processed in the brain is more optimal if using mnemonic strategies. Learning activities in schools are expected to develop three aspects, namely cognitive, affective, and psychomotor. Baharun (2018) states that the cognitive, affective, and psychomotor aspects developed in the learning process can be improved by using mnemonic learning strategies. This is in line with Lubin & Polloway (2016) mnemonic strategy can develop a wide range of students' abilities. This can happen because mnemonic learning can make learning activities more meaningful and connect initial knowledge and new knowledge in the cognitive structure of students (Zaenuri, 2021).

Learning in English is often called learning which in Indonesia is called the learning process. Arifin (2017) learning contains two main properties, including interactive and communicative. This means that learning carried out in the learning process does not occur alone but there is an interaction between learners and those learned as learning resources. In this regard, mnemonic learning strategy means learning that is done by remembering, constructing, and associating the learning experience through coding strategies. Self-concept formation concept). As well as training children towards controlling and renew his feelings, his way of thinking and his deeds (Sari, 2015).

Student intelligence in learning is quite diverse, one of which is students with slow learners category. The diversity of students' abilities is measured through IQ intelligence tests. Stanford Revision in (Baharuddin & Wahyuni, 2015) classifies student intelligence into seven levels consisting of very superior among 140169, superior among 120139, high average 110119, average 90109, low average of 8089, bordeline defective among 7079, and mntally defective among 2069. Next Cooter & Cooter Jr., 2014; Wiley, 2017; Suryana quoted (2018) that the IQ of slow learner students is between 7090. It shows that in both opinions above, slow learners can be placed in categories with mentally weak abilities to low averages.

Slow learner is a student learning condition that tends to be slow or the speed of learning is not like other normal children. Sugiarti & Personal (2013) One of the problems of slow learner students lies in the mastery of materials that tend to be low. Raharjo (2012) argues that slow learner children have difficulty in reproducing the knowledge they have gained when taking the test. In line with that Borah (2013) quoted (Wanabuliandari & Puraningrum, 2018) stated one of the weaknesses of slow learner students is the low memory ability. As stated by Sugiyarta & Suparman (2019) that the cognitive abilities of slow learner students are below average. This shows that students who experience delays in learning are caused by lack of optimal cognitive function, resulting in forgetting. To associate every information in the cognitive structure of humans one of them by using mnemonic techniques (Istiqamah & Ichsan, 2021).

The existence of slow learners in the classroom requires effective handling in the learning process. Nengsi, et al (2021) in their study found that the ability to memorize (remember) and understand the material in each subject of slow laearner students tends to have difficulties. While slow learner students in numbers put men with more numbers when compared to women. Amelia's research (2016) showed that slow learners with the male sex performed with a figure of 66.7% more when compared to girls who were at 33.3%. It is caused by learning difficulties, dyslexia, discallia, and dysgraphia that tend to be experienced by boys (Amelia, 2016).

One strategy that is considered suitable to improve the learning ability of slow laerners students is to implement a mnemonic strategy. Yogantari & Wilani (2018) explained that the ability to remember can be improved by implementing a mnemonic strategy, namely with the loci technique. In terms of remembering is closely related to memory. Purnamasari, (2018) in his research found that mnemonic strategies can improve students' memory. While Lubin & Polloway (2016) showed the results of their research that students feel happy to participate in learning activities by implementing mnemonic strategies. This shows that mnemonic strategies make students happy in learning so as to improve memory skills.

The special problem that is currently happening is that children are very difficult to remember and understand lessons so that a solution must be found, a suitable solution is to use mnemonic learning strategies. Mnemonic learning strategies in improving students' cognitive abilities are a strategy that needs to be applied to learning activities, especially to deal with students who experience delays in the learning process or often called slow

learners. This study aims to identify the various techniques found in the literature study. The hope is that students who experience delays in learning can be overcome through the implementation of mnemonic strategies so as not to experience lags in improving the competence of the students themselves.

Research Method
This research is carried out using a type of qualitative research with the type of literature study. Surahman, et al (2020) literature review is carried out by reviewing literature available online or printed after finding research ideas. Reviewer conducted 20 literature studies of national and international journal articles using Miles & Huberman analysis techniques in (Sugiyono, 2018) consisting of three stages, namely data reduction, data presentation, and conclusion/verification. Based on the two opinions above, in this study conducted an analysis on the article. The results of the literature collection are further reduced and presented for a research conclusion.

Results and Discussion
Students' learning abilities have different levels. There are students with high, medium, and low learning speeds. Delays in learning experienced by students are referred to as slow learners. The learning problems of slow learner students are not only in certain subjects but tend to all subjects (Aziz, et al. 2015). Rofiah & Rofiana (2017) conducted an assessment of slow learner students found that the students are weak intelligence, weak language skills, emotions tend to be unstable, but on the moral aspect of the student can follow the rules of the school well. Learning delays experienced by slow learner students are not only internal factors but are influenced by external factors. Rosada (2016) cites Natawidjaja's opinions suggesting internal factors, namely weak intelligence, special talents that tend to be invisible, low learning motivation, poorly controlled emotions, physical state, and congenital defects. While external factors are schools, families, and the community environment

Handling the learning process of slow learner students is different from normal students. The philosophical flow of progressivism can be used as a foundation in learning in students who are slow to learn. Fauziya & Aziz (2022) in his research revealed that the view of the flow of progressivism is autonomous and more meaningful learning. Furthermore, it is explained that with the view of progressivism towards slow learner students, there are five aspects of learning including (1) the availability of relatively more learning time compared to normal students, (2) asking problems related to daily life, (3) triggering self-confidence with rewards, (4) the use of audiovisual media, and (5) learning repeatedly to improve memory.

Handling slow learner students requires the right strategy or method so that the student's learning delay can be overcome properly, especially on the ability to remember. Khabibah (2013) advocates the use of key terms to improve the memory of slow learner students. Mnemonic strategy emphasizes two aspects, namely pronunciation and meaning. Staregi mnemonic prioritizes two main elements in learning consisting of first the memorization and use of information, the second meaning of information obtained (Akpan, et al. 2021). Putnam (2015) mnemonic is a strategy used to improve memory capabilities. Mnemonic is a learning strategy to improve memory skills with a variety of techniques. Furthermore, there are a variety of mnemonic strategies of the results presented in table 1. below.

Table 1. Variety of Mnemonic Techniques According to Experts

No.	Article Identity	Mnemonic Technique
1.	Dr. Joseph Akpan, Dr. Charles E. Notar(Emeritus) & Dr. Larry Beard. 2021.	1. *Abbreviation* 2. *Acrostic* 3. *Cutting* 4. *Keywords* 5. *Phonic and spelling* 6. *Rhyme/alliteration,* 7. *Voice correspondence* 8. *Visual images/signs.*
2.	Verdianingsih (2014) yang dikutip Rahmawati. 2019.	1. *Method of loci,* 2. *Peg word system* 3. *Key word method* 4. *Acronyms* 5. *Acrotics* 6. *Phrase* 7. *Rhyme,* dan 8. *Chunking.*
3.	Eric Jensen (2002) yang dikutip (Erwin Kurnia Wijaya. 2012.	1. *Loci method* 2. *Marker word system* 3. *Keyword method* 4. *Connecting method* 5. *Acronym* 6. *Acrostic* 7. *Rhymes and jingles*
4.	Ahmad Zaenudin dan Khozinul Asror. 2019.	Wade & Tarvis 2008. 1. *Rhyme* 2. *Formula* 3. *Visual impression, and* 4. *Word association* Matlin (2016) 1. *Imagery* 2. *Keyword* 3. *Loci Method* 4. *Organization* Syah (2014) 1. Rima 2. Singkatan 3. Sistem kata pasak 4. Metode losai 5. Sistem kata kunci
5.	Svetlana Aleksandrovna Radionova, Gulnara Zamirovna Sharaeva, Rezeda Yoldizovna Mukhtarova.	1. Encoding by first letter 2. Method of total physical response 3. Visualization 4. Personalization. 5. Quasi-words formation 6. Method of loci 7. Mnemonic associations

Based on Table 1. that has been presented, there are many similarities in mnemonic techniques according to experts, although there are also different ones. Here will be presented some mnemonic techniques that are often used in learning activities.

1) Acronym

Acronym is an abbreviation of a name, phrase, or word attack by taking the first letter on each word to be used as an abbreviation that is more familiar and easy to remember. Acronyms should be able to attract the attention of students so that they can be remembered for a long time (Zaenudin & Asror, 2019). Lubis & Syahputri (2022) through their research found that acronym techniques in improving vocabulary memorization skills are better when compared to rhyme techniques and peg word systems. Examples of acronyms that are interesting for students such as memorizing the names of animal and plant types on the food chain such as paditikusularelangpadi shortened to PTUEP. This acronym technique is very popularly used (Akpan, et al. 2021). This acronym method is done by using words or components that have been mastered by the previous child (prior knowledge) such as pegs (nails) remembering new memories. This peg system uses the word peg components formed in pairs such as yellow-sunflower, cold-snow. This word is useful to help students in remembering words and terms that have the same nature.

2) Acrostics (first letter)

Acrostics has similarities with acronyms only in the acrobatic use of the first letter to form a word or phrase that is interesting and familiar to students so that it is easy to remember. Akpan, et al (2021) acrostics form a sentence by taking each first letter on each word to be used as a new sentence. An example of acrobatics in a poem with the title My Dream is acrobaticized to be a Doctor revealed by Hidayat & Indihadi (2018) as follows:

> *My dream*
> *In my dream in white*
> *People desperately need*
> *my hands because I am*
> *able to treat diseases*
> *and treat them Every day*
> *I do good it can be like that*
> *It feels like I want to be a quick adult.*

In the poem students memorize and remember the word doctor on each line of the poem taken the first letter at the beginning of each sentence. This makes it easier for students to remember the content of a poem with one word, namely doctor. While in Triswanto's research, et al (2019) acrobatic techniques are used in learning activities as well as juxtaposed with other suitable strategies.

3) Chunking

That means they need a chunk of information, then an opportunity to process that in some way. Here's where "turn and talk" works, as well as an opportunity to write, draw, or even move. The brain learns new information in chunks. Brain research states that children between the ages of 5 and 13 learn best when given chunks of 2 to 4 pieces of information. Children ages 14 and older can learn up to 7 chunks at a time. Teachers should plan for these limits and teach material in small chunks.

Chunking strategy is known as a strategy that aims to summarize an information into several pieces that are inseparable from the information itself. Akpas, et al (2021) explained that chunking strategy is a way of breaking down information into small parts. For example, in helping students memorize the Population Master Number (NIK) consisting of 16 digits.

The initial two digits mark the province, the next four digits mark the district / city area, as well as the subdistrict where the owner of the NIK registered with the civil registry office.

4). Loci

The association of information in memory becomes an important element in learning. Syanthi et al (2016) define the loci technique as a learning activity by connecting objects with a particular place. Hariadi (2021) loci technique is used to connect an event with the scene. The loci technique helps to connect or construct the relationship between the community and the place, namely using special places known to students as a means of placement of boarding that must be remembered by students. In this case can use the name of the city, street, famous buildings that are often used and familiar to relevant students in the sense of having similar characteristics or circumstances.

Slow learner students are known to experience delays in their learning. One of the causes of slow learner learning delays is the ability to store information in their cognitive structures. Syanthi et al (2016) showed in their research that loci techniques when applied to IPA learning help students better in memorization skills than just reading. While Beni & Cornoldi (1984) showed his research is a loci technique in addition to good for studying subject matter and maintaining the sequence of information in cognitive. Lubis & Syahputri research (2022) shows in the ability to multiply

The vocabulary of the loci technique has a significant increasing impact. Loci technique can be done with the daily activities of students such as students are asked to pick up books on the library bookshelf and ask for them to return and turn them exactly in their original place.

5). Rima

Singing a song is nothing new for everyone. Singing requires the ability to remember every lyric and tone. In addition, at the time of singing we can understand the meaning or message that the poet wants to convey. Singing songs with lyrics loaded with subject matter taught in learning activities can make it easier for students to remember the material learned (Verdianingsih, 2020). Memorizing through singing results in memory will last for a long period of time (Aros, 2021). This means that learning a material packed through a song will be stored in memory for a relatively longer period of time. McCabe, et al (2013) in their research mentioned that in the mnemonic song teachers write lyrics on songs that are trending. Song rhymes are the result of a famous song composition with lyrics that are loaded with subject matter to be sung by students. In the Rima method, vocabulary materials given to students are given and packaged using rhymes so that they are easily remembered by students where the rhyme is given notes so that they can be sung. Children's songs can be used as references for examples of mnemonic rhyme arrangements.

6. Keywords

The keyword method (keyword) is more likely to be used to multiply students' vocabulary. Students will be helped when vocabulary is used as a keyword in learning. Sudirman & Ridha (2017) is one way to associate old information with new information through keyword techniques. Kwahaldeh & Hasawneh (2019) on their research found that in maintaining or learning vocabulary it is necessary to apply keyword techniques. This is in line with research Lubis & Syahputri (2022) found the use of keyword techniques to improve vocabulary memorization skills much better than rhyme techniques, acronyms, peg word systems, and loci. Lubis & Syahputri exemplifies the use of keywords in some words such as foreign accept words with phonetics aksept coded into asep which means receiving. However, keyword techniques are not precisely used to understand the meaning of a group of words (Wei, 2014).

In a keyword system is choosing one word to present a thought or several longer ones. For example, to help students remember the order of the planets, the teacher made an interesting keyword, namely Mevebumayusa which stands for Mercury, Venus, Earth, Mars, Jupiter, Saturn. Mnemonic techniques are effective in helping students to remember and understand lessons. Even so, the mnemonic method does not guarantee that incoming information will still be remembered, because to store information into long-term memory at least requires a lot of repetition, especially in slow learner students, continuous repetition is needed. Difficulties in learning often occur in students which cause delays in receiving knowledge, therefore it will be more effective to use mnemonic techniques in the learning process in order to help students memorize and remember the material that has been delivered.

Conclusion

The conclusion obtained from the results of this study that mnemonic technique is one way of teaching teachers to make it easier for students to remember and understand information received by converting short-term memories into long-term memories. Speaking of mnemonic memorization models, it is inseparable from memory or memory which is an ability to store and reproduce things that were once known. Mnemonic learning is one of the strategies in brain based learning. Based on the results of analysts literature review found that there are six most prominent mnemonic techniques, namely, Acronym, Acrobatics, Chunking, Rhyme, Loci, and Keywords. The six techniques are not only often used in learning but can also improve the cognitive abilities of students, especially slow learner students both in memory and understanding.

Recommendation

Mnemonic techniques can assist teachers in elementary schools in teaching slow learners. This research is expected to be a solution for teachers who have difficulty in teaching slow learner students.

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