



## Evaluation of II B.A.M.S. Student's Understanding of Signs and Symptoms of Poison by Using Mnemonics as a Teaching Aid

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### Introduction

Teachers across various institutions have come across the student's confusion over effects of poison. They are not able to remember the specific signs and symptoms of poison. Further it becomes difficult to diagnose and treat the patient with poisoning. Students study various poisons over a period and it becomes difficult to memorise the exact signs and symptoms at the time of examination. They end up with stress and have a fear of it. Medical students are required to retain vast amount of medical knowledge on the path to becoming physicians.

Since time immortal men have searched for various incantations, rituals, tricks, gimmicks, artifice and methods to improve their memories.

Mnemonics have been shown to be effective in learning new information and later recalling it. Retention and recall is critical for medical students and atrophy of knowledge over time following examination is an established problem in medical education.

There are various Mnemonic devices like visual image, Acrostic (First letter Mnemonic), Acronym, Chunking, Rhymes, Alliteration.

### Context

Classroom demonstrations of empirically supported learning and memory strategies have

the potential to boost students knowledge about their own memory and convince them to change the way they approach memory tasks in and beyond the classroom.

This study is attempted to determine if Mnemonics are effective means of learning and memorising.

Mnemonics devise Acrostic (First letter Mnemonic) was used and all the signs and symptoms were included in it.

### Methods

II year B.A.M.S 10 students who voluntarily took part in this study were demonstrated signs and symptoms of poison using Mnemonics. At the end the students were assessed with MCQs and Feedback was obtained from the students.

All items in the questionnaire in feedback form were having 5 responses

- 1- strongly agree
- 2 - agree
- 3 - Don't know
- 4 - Disagree
- 5 - strongly disagree

### Results

All the students answered the MCQs. Half the students answered all the questions rightly and half answered scoring 75 %.

90 % strongly agreed and 10 % did not know for the about liking of Mnemonics teaching aid. All the students strongly agreed that this teaching aid

helped them to understand the signs and symptoms.90% strongly agreed and 10 % agreed that this would be useful for revision before examination.70% strongly agreed and 30% agreed to introduce this teaching method for further teaching of poisons..90 % strongly agreed and 10 % agreed that this method will help them to score better in exams.

90 % strongly agreed and 10 % disagreed that this method is better than traditional method of teaching .80% strongly agreed and 20 % agreed that this will help to decrease jumbling of signs and symptoms with other poisons.80% strongly agreed and 20 % agreed about helpfulness to increase their confidence during exams.

### Discussion

Previous articles suggest that Mnemonics can strengthen undergraduate's metacognitive sophistication.

In this study students found this teaching aid to be interesting tool to study and memorise the signs

and symptoms of poisons. Students strongly agreed this method to be valuable in increasing confidence in exams and decreasing jumbling of signs and symptoms .This method is useful as a cognitive aid. It proves to be better than traditional method of teaching.

Study determining long term memory retention is further needed.

### Conclusion

This study showed a positive response toward learning and a effort to remember the complex varied important characteristics of a poison. This study suggests that Mnemonics provides marked improvement for teaching main attributes of poisons .It also showed the positive interest of students in learning ,understanding and memorising the signs and symptoms of poison. This may be helpful in reducing the fear of toxicological examinations.

### Feedback Questionnaire

Participant No

Thank you for participation in this study project. I request to give your feedback using following score

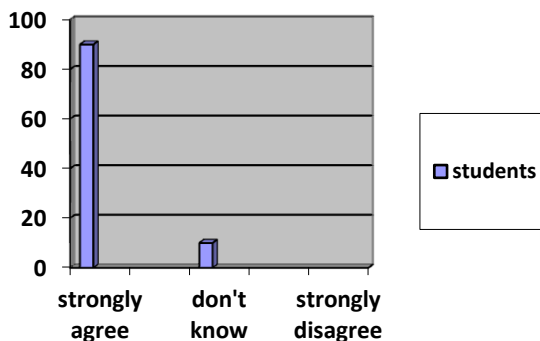
Strongly Agree      Agree      Don't know      Disagree      Strongly disagree  
1                              2                              3                              4                              5

	Question	Strongly Agree	Agree	Don't know	Disagree	Strongly Disagree
1.	Did you like Mnemonics for teaching poison's signs & symptoms ?					
2 .	Did you understand the signs and symptoms by this method of teaching?					
3 .	Is this method useful for revision before examinations ?					
4 .	Would you like to introduce this type of teaching method for further practical of poisons ?					
5 .	Do you think it will help you to score better in exams ?					
6 .	Is this method better than traditional method of teaching?					
7 .	Will it help to decrease jumbling of signs and symptoms with other poisons?					
8 .	Will it be helpful to increase your confidence?					
9 .	Did this teaching create interest in study of poison?					

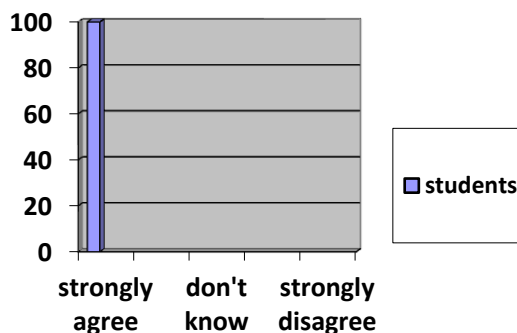
**Graphs**

**Student's Feedback**

90% strongly agreed and 10% did not know for their liking for Mnemonics aid for teaching.

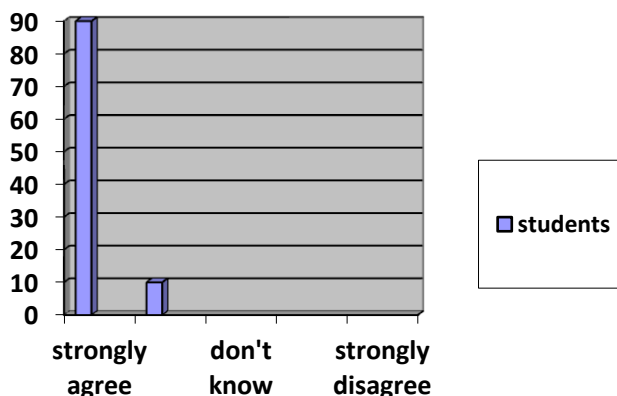


All the students strongly agreed that this teaching aid helped them to understand the signs and

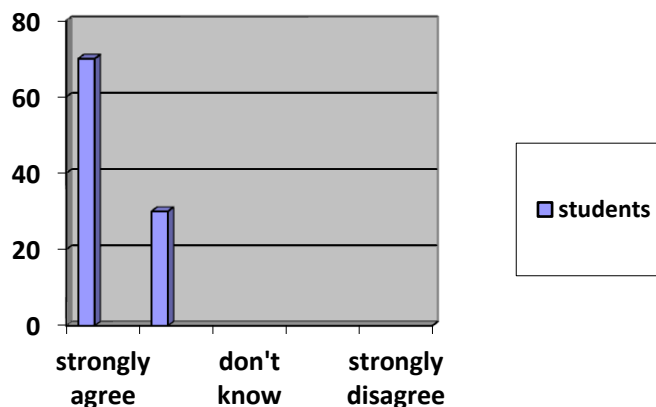


symptoms

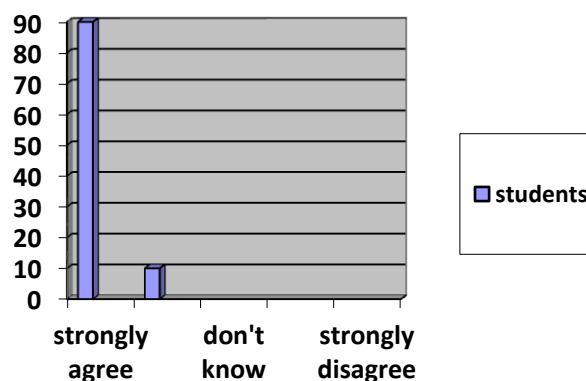
90% strongly agreed and 10 % agreed as this aid would be useful for revision before examination



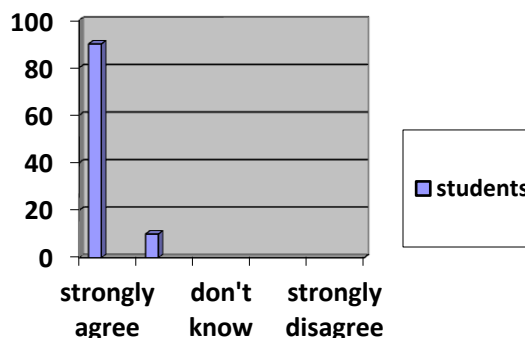
70% strongly agreed and 30% agreed to introduce this teaching aid for further teaching of poisons.



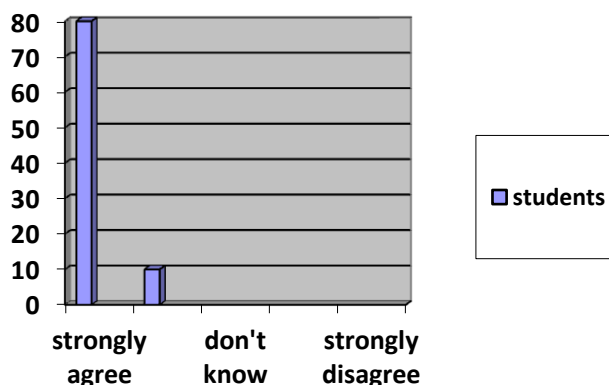
90% strongly agreed and 10 % agreed that this method will help them to score better in exams.



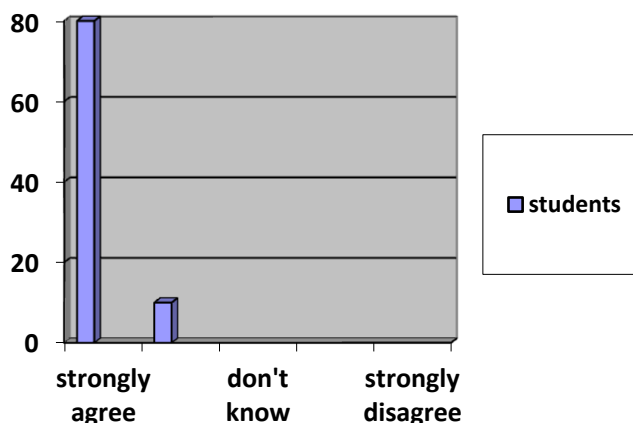
90% strongly agreed and 10 % agreed that this method is better than traditional method of teaching.



80 % strongly agreed and 20 % agreed that this will decrease jumbling of signs and symptoms of other poison.



80 % strongly agreed and 20 % agreed about helpfulness of this aid to increase the confidence during exams.



### What was your experience while carrying out the project:

It was a good experience demonstrating this method to the students. This method was a boost for learning and memory technique. It showed positivity towards learning.

### Annexure

#### References

1. The Picmonic learning system: enhancing memory retention of medical sciences.  
Adeel Yang Hersh Goel
2. Analysis of a Mnemonic Device  
Gorden H.Bower
3. Practical way of creating Differential diagnosis through an expanded VITAMIN ABCDEK Mnemonic

Zabidi-Hussin ZA

4. Demonstrating the Mnemonic Benefit of the method of Loci

Jennifer A.McCabe

5. Can Visual Memory Devices Aid Retention and short-term Recall of Pre-clinical science knowledge?

Anthony Louis Hawkins Jonathan D. Kibble University of Central florida, Orlando ,FL

6. A Mnemonics to Facilitate the Handover from the Operating Room to Intensive care unit I PUT PATIENTS FIRST

Tiffany Sun Moon, Michael X Gonzales and Amy P woods

7. The Methods of Loci improves Longer – term Retention of Self-Affirming Memories in Recurrent Depression

Aliza Werner-Seidler Tim Dalgluish

### Project summary

Medical students are exposed to a very large arena of knowledge. Due to the complex and varied content of the study, it becomes difficult for the students to understand and memorise the particular things regarding one topics. Mnemonics have been shown to be effective in learning and recalling it. In this study Mnemonics aid of teaching was used to introduced for teaching signs and symptoms of poison. Mnemonics devise Acrostic (First letter Mnemonic) was used and all the signs and symptoms were included in it. II year B.A.M.S 10 students who voluntarily took part in this study were demonstrated signs and symptoms of poison using Mnemonics. At the end the students were assessed with MCQs and Feedback was obtained from the students. All the students answered the MCQs. Half the students answered all the questions rightly and half answered scoring 75 %.Feedback from the students obtained the following results 90 % strongly agreed and 10 % did not know for the about liking of Mnemonics teaching aid. All the students strongly agreed that this teaching aid helped them to understand the signs and

symptoms.90% strongly agreed and 10 % agreed that this would be useful for revision before examination.70% strongly agreed and 30% agreed to introduce this teaching method for further teaching of poisons..90 % strongly agreed and 10 % agreed that this method will help them to score better in exams.90 % strongly agreed and 10 % disagreed that this method is better than traditional method of teaching .80% strongly agreed and 20 % agreed that this will help to decrease jumbling of signs and symptoms with other poisons.80% strongly agreed and 20 % agreed about helpfulness to increase their confidence during exams.

This study showed a positive response toward learning and a effort to remember the complex varied important characteristics of a poison. This study suggests that Mnemonics provides marked improvement for teaching main attributes of poisons. It also showed the positive interest of students in learning, understanding and memorising the signs and symptoms of poison. This may be helpful in reducing the fear of toxicological examinations. Students strongly agreed this method to be valuable in increasing confidence in exams and decreasing jumbling of signs and symptoms .This method is useful as a cognitive aid. It proves to be better than traditional method of teaching.