

Content available at: <https://www.ipinnovative.com/open-access-journals>

International Journal of Clinical Biochemistry and Research

Journal homepage: <https://www.ijcbr.in/>

Short Communication

Blunder lecturing: Let's avoid this blunder

Poonam Agrawal^{1*}

¹Santosh Deemed to be University, Ghaziabad, Uttar Pradesh, India



ARTICLE INFO

Article history:

Received 15-09-2024

Accepted 03-10-2024

Available online 18-10-2024

This is an Open Access (OA) journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/), which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprint@ipinnovative.com

1. Introduction

Recently I came across few articles where various researchers have advocated

“Blunder Lecturing” as an effective mode of teaching medical undergraduate students.^{1,2} This article delves into various aspects of blunder learning and author wish to express her own opinion on this sensitive mode of teaching medical undergraduates

"Blunder learning" refers to the concept of learning which involves using “mistakes as a learning tool”, where students make errors, reflect on them, and learn how to correct and avoid such errors in the future. In the context of medical education, this concept proves to be a double edge sword which has it's own benefits and drawbacks.

2. Benefits of Blunder Learning

Following are certain benefits of blunder learning described in literatures from time to time.

3. Engagement in Learning and Retention

Making mistakes can lead to deeper engagement with the material, as students often remember lessons learned from their own errors. Correcting a mistake often leads to better retention of the correct information compared to merely learning it correctly from the start.

* Corresponding author.

E-mail address: drpoonam24agrawal@yahoo.com (P. Agrawal).

4. Critical Thinking and Problem-Solving

Blunder learning encourages students to think critically about why an error has occurred and how it will be rectified, fostering problem-solving and analytical skills. Students learn to adapt and find solutions in response to challenges, which is crucial in real-world situations.

5. Growth Mindset

Emphasizing learning from mistakes supports a growth mindset, where students see challenges as an opportunities to improve rather than getting demoralized by them.

6. Exposure to Real World Situations

In professions like medicine, learning from mistakes during training can be crucial for developing the ability to avoid or manage errors in high-stakes situations.

7. Potential Hazards of Blunder Learning

- 1. Frustration and Demotivation :** Frequent mistakes without adequate support or guidance can lead to frustration, anxiety, and a loss of confidence, which may demotivate students. If too much focus is placed on mistakes, it can create a negative learning environment where students become afraid to take risks or make decisions.
- 2. Mislearning :** If not properly corrected, errors can lead to the reinforcement of incorrect information or

habits, which can be difficult to unlearn later.

3. **Slowed learning** : Constantly addressing mistakes can slow down the learning process, which might be inefficient if not balanced with positive reinforcement.
4. **Risky** : In fields like medicine, where mistakes can have serious consequences, blunder learning must be carefully managed to ensure that errors are part of a controlled learning environment and do not lead to real harm.

7.1. *Balancing may help*

Blunder learning can be highly effective when used thoughtfully as part of a broader educational strategy. For blunder learning to be beneficial, it should be balanced with positive reinforcement and opportunities for success. This approach helps students build confidence and resilience while also benefiting from the critical insights that come from understanding and correcting mistakes.

7.2. *Possible ways to implement blended learning in medical education setting*

Blunder learning should ideally take place in a controlled environment, such as simulations or supervised clinical settings, where mistakes do not harm real patients. This ensures that students can learn from their errors without causing harm.

In these controlled environments, students can make mistakes without real-world consequences. For instance, in a simulated surgery or simulated patient interaction, students might make a diagnostic error or administer the wrong treatment, and then learn how to correct it.

Case studies that highlight past medical errors can be used to teach students about common pitfalls in diagnosis, treatment, or patient communication. These cases provide a rich source of discussion, helping students to understand the nuances of medical practice.

In medical training, students can review real or hypothetical cases where errors were made. They can analyze what went wrong, discuss how the error could have been prevented, and what could be done differently in the future. This not only reinforces learning but also emphasizes the importance of vigilance and critical thinking in medical practice.

Engaging in peer reviews or group discussions where students critique each other's work or discuss potential errors in clinical cases can foster a deeper understanding. It encourages learning from each other's mistakes in a collaborative environment.

While learning from mistakes is valuable, it's also important to balance this with opportunities for students to practice and reinforce correct techniques and knowledge. Overemphasis on errors might lead to a negative learning experience if not managed properly.

Involving real patients in blunder learning is ethically complex and generally not advisable. Any form of blunder learning in clinical settings must prioritize patient safety and be conducted under close supervision.

8. Conclusion

Many researchers have advocated that Blunder learning can be a powerful tool in medical education, promoting deep learning, critical thinking, and resilience. When implemented in a controlled and supportive environment, it allows students to experience and learn from errors without real-world consequences. Blunder learning prepare students for the realities of medical practice, where the ability to learn from mistakes is an invaluable skill.

8.1. *Authors personal views on blunder learning*

Being a medical educationist for past almost two decade and my keen interest in making teaching medical science to the student easy and relevant, I am not in favor of blunder lecturing. In my opinion blunder lecturing may turn out to be a blunder at the time when we medical teachers are already hard pressed with the time in vast MBBS curriculum. My concern is why to teach them wrong at first hand and then to rectify it later.

My biggest concern is why we need to teach them wrong initially. I fear it will instill in the mind of young learner that whatever is being taught to him/her is a part of blunder teaching and may not put effort to understand and retain the information even when the actual subject is being taught to them.

As we all know that attention span of learning is only 20-30 minutes.³ What if the student is in his attention span when wrong teaching is delivered and not in his attention span frame when right teaching is being delivered. The end result will be devastating as we as a medical teacher are dutifully responsible for producing doctors who will be treating human beings.

We have better techniques like case based learning (CBL), problem based learning (PBL), Self Directed Learning (SDL), Jigsaw etc. which can easily be implemented in teaching relevant topics. Many studies have shown that such strategies enhances student involvement in learning and motivating them to develop critical thinking skill.⁴⁻⁶

In nutshell I wish to state that rather than implementing blunder lecturing techniques, other time tested and proven techniques like Case Based Learning, Problem Based Learning, Self Directed Learning, Jigsaw etc. can be implemented to make learning more relevant and interesting along with increasing student enthusiasm and strategically developing critical thinking skill.

9. Source of Funding

None.

10. Conflict of Interest

None.

References

1. Kher M, Aggarwal M, Gupta PK, Dhull N. Impact of blunder lecture on deep learning of pharmacology concepts by cognitive conflict strategy: A new standard in teaching. *Natl J Physiol Pharm Pharm.* 2024;14(3):484–9.
2. Singh S. Blunder lecture to re educate physiology concepts by cognitive conflict strategy. *Adv Physiol Educ.* 2014;38(3):265–72.
3. Bradbury N. Attention span during lectures: 8 seconds, 10 minutes, or more? . *Adv Physiol Educ.* 2016;40:509–13.

4. Nair SP, Shah T, Seth S, Pandit N, Shah GV. Case based learning: a method for better understanding of biochemistry in medical students. *J Clin Diagn Res.* 2013;7(8):1576–84.
5. Lalit M. Active Learning Methodology - Jigsaw Technique: An Innovative Method in Learning Anatomy. *J Anat Soc India.* 2019;68(2):147–52.
6. Ghani A, Rahim A, Yusoff M, Hadie S. Effective Learning Behavior in Problem-Based Learning: a Scoping Review. *Med Sci Educ.* 2021;31(3):1199–211.

Author biography

Poonam Agrawal, Professor and HOD

Cite this article: Agrawal P. Blunder lecturing: Let's avoid this blunder. *Int J Clin Biochem Res* 2024;11(3):204-206.