



PMI (Plus-Minus-Interesting): A creative thinking strategy to foster critical thinking

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Abstract

"Thinking is our way of moving from one arrangement of knowledge to a better one." (De Bono, 1988)

PMI (Plus-Minus-Interesting) is a strategy that requires to look at three outlooks: the positive or pluses, the negative or minuses, and the neutral or the interesting and also to make the students more active in the classroom with using these outlooks. So, "Plus" is related to the positive elements of the topic. It can be all of the benefits or advantages of a particular thing. "Minus" is related to negative element; it means the bad or disadvantages of one thing. "Interesting" is related to those points that neither good nor bad, but are regarded as neutral observation, comment or points of interest. PMI strategy obliges students to consider all ideas, even those ones they might normally reject at first sight, and to decide their stance on an idea or issue after they have analyzed it instead of before. It enables students to consider all factors and other people's views for similar activities. In this article, an attempt has been made to explain how PMI strategy works, and how PMI chart help in increasing critical thinking & decision making skills and in making classroom interaction effective.

Keywords: PMI (Plus-Minus-Interesting) strategy, creative thinking, critical thinking

Introduction

In today's time, novel chances for the appearance of the issues like styles of learning, student-oriented education, deeper levels of thinking, the teachers' mind-sets and beliefs often impedes the teachers to manage to incorporate the strategies with their course designs and syllabus completely. Many factors urge teachers to use effective strategies in their classrooms. Effective, innovative strategies used by the teachers in the classroom to deliver information, play an important role in making teaching-learning process more interactive, collaborative, personalised, meaningful and fulfilled. These strategies help to activate student's curiosity about class topic, engage them in learning, develop critical thinking and keep students on task. Among such strategies, PMI (Plus- Minus- Interesting) strategy is one which is creative and brainstorming and helps in enhancing critical thinking & decision making skills in students.

PMI (Plus-Minus-Interesting)

PMI (Plus- Minus- Interesting) – the brainchild of Edward De Bono published it in his book (1982), "De Bono's Thinking Course." It is a lateral, creative and critical brainstorming thinking strategy and attention directing tool that prompts students to consider multiple approaches to a topic. Dr. De Bono felt that one of the problems with traditional thinking is that people focus their attention on how to back up an opinion that has already been formed. PMI is designed to open up each participant's thinking and encourage creativity. In this strategy, P stands for Plus or good points, M stands for Minus or bad points, I stands for Interesting points. Plus, Minus, Interesting is a way to analyse ideas, texts (written, visual, digital) and topics for learning. It helps students in the finding

the solution of the problem easily (Mirawati & Zul, 2013) ^[10]. Studies conducted by Ahmed & Omotunde (2012) ^[1], Conklin (2012) have clearly shown that by using PMI students can develop their ideas. PMI assists in making wise decisions, critical thinking and evaluation (Bennett (2001)) ^[2]. This strategy helps students to give an opinion based on their point of view (De Bono 1994). It can be used for making specific information into some columns (Ponnia 2010). According to strteeter (2004) & Sanchez (2010) ^[13] advantages of PMI strategy are following:

1. It can foster analytical thinking among students so that they feel comfortable in finding the solution of the problem.
2. It can be used in many content areas. It means that the strategy can be used in teaching or non-teaching process.
3. It can be applied in group discussion. Through this strategy students can share their information or opinion about something, and they feel confident to share their idea in discussion as result students enhance their social skills.
4. It can help students to generate ideas about a question or problem.
5. It help the students to see and value both sides of an argument.
6. It help the students to make enlightened decisions.
7. It encourages students to reflect on creative and border aspects of a topic.
8. It make students free to share their ideas with other.

Procedure for using PMI Strategy

From the above discussion, it is clear that this strategy can be used within a range of classroom activities such as analysing

texts or examining the issues, individually, in pairs or small or large groups. While applying this strategy in the classroom following steps will be considered by the teacher:

Step 1: - The teacher asks the students “Why is it important to

think about all sides of an issue or idea”.

Step 2: - The teacher ask the students to identify Plus- Minus-Interesting aspects of the issue or topic. By identifying these aspects, students will have clear cut thinking about the issue.

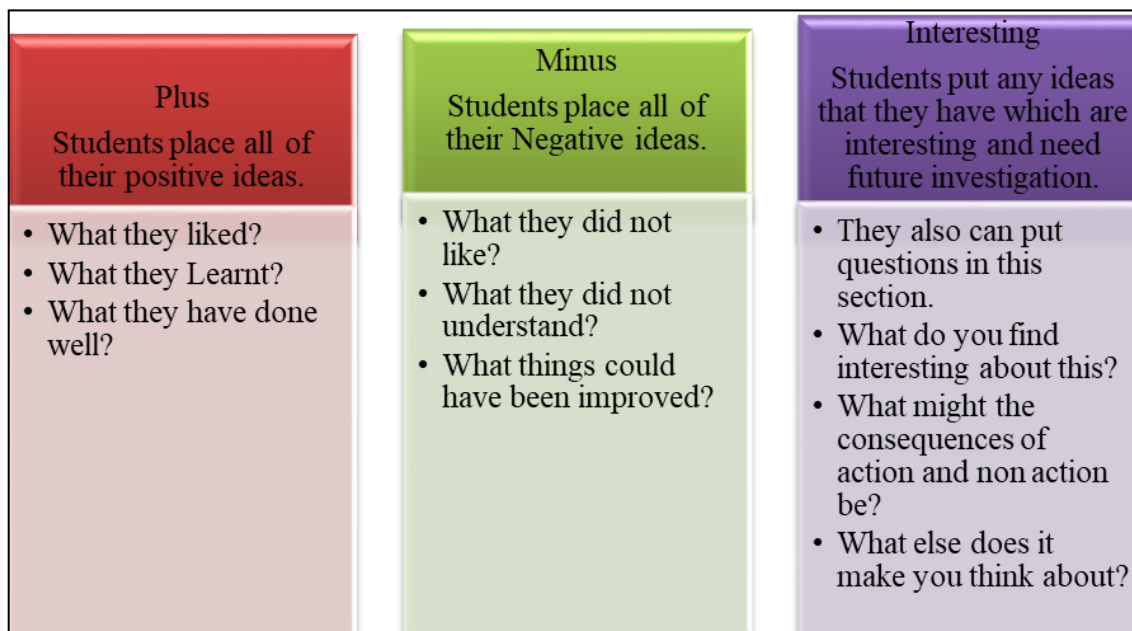


Fig 1

Step 3: - The teacher poses another question: the teacher asks the students to vote for all the three aspects of the issue i.e. Plus-Minus-Interesting and record their responses on the board which will be followed by classroom discussion to value the process.

Step 4:- Scoring: - After making the PMI chart, the group can score the table to make a decision about the topic. When deciding on whether or not to take a particular course of action, use a scoring system along with the PMI strategy. Each idea in the plus-minus-interesting category will be given scoring which will range from (for example +5 to -5), which is subjective in nature. After scoring each idea, are tallied figures to decide if an action should be taken or not. In this procedure, time limit is there. Students can take 3-5 minutes at every step.

Step 5: Conclusion:- In the last step, on the basis of PMI chart including Plus, Minus and Interesting aspects, conclusion are made.

Let us try to understand the above steps by the following example. Example “Use of Multimedia in classroom instruction” and draws up the PMI chart:

Phillips, (1997), “Multimedia is characterized by the presence of text, picture, sound, animation and video; some or all which re organized into some coherent programme”.

The term multimedia was coined by Singer and artist Bob Goldstein (1996) to promote opening of his light works at L’Oursin’ show at Southampton. Multimedia enables students to represent information using several different media. It is a

combination of computer hardware and software that allows us to integrate video, animation, graphics, and text resources to develop effective presentations on an affordable desktop computer Some students learn by interpreting text, while others require more graphical or aural representations, allows for self-pacing and discovery. Thus a multi-sensory experience can be created for the audience, which in turn, elicits positive attitudes towards its application. Multimedia has also been shown to elicit the highest rate of information retention and result in shorter learning time. Thus, Student’s exposure to such technologies results in better teaching-learning as compared to traditional method. With multimedia, the process of learning becomes more goals oriented, more participatory, and flexible in time and space, unaffected by distances and tailored to individual learning styles, and increased collaboration between teachers and students. Multimedia makes learning user friendly and fun-oriented without fear of inadequacies or failure. Multimedia encourages users to embrace, internalize, and learn more from information because users can attack the information from multiple directions. In other words, users of multimedia applications have an opportunity to read about information, and to see it, hear it, and watch it move. In the field of education multimedia is being used extensively especially for online courses and trainings. Multimedia is also used in advertising purposes. The use of multimedia approach represents one of such strategies and approaches to improve the process and products of teaching- learning.

Table 1: The example of PMI (Plus-Minus-Interesting) Chart

PMI (Plus- Minus- Interesting) Chart Template		
Topic: - Use of Multimedia in classroom instruction		
Plus Advantages/Benefits/Strengths/ Positives/Good things	Minus Disadvantages/Deficiencies/ Weaknesses/Minuses/ Negatives	Interesting Implications and possible outcome/Attention- grabbing/Out of the ordinary/Appealing
Provide Drill and practice to master basic skills. +5	Time consuming. -2	Multimedia is a combination of text, graphics, sound, animation, and video, interactive electronic or digital means of manipulation delivered to the user. +4
Attractive and entertaining strategy, bring virtual world in classroom. +4	Very expensive. -3	Multimedia is all about communicating in several ways. +3
Improve problem solving abilities. +5	Complex to create. -3	Use multimedia for wrong purposes (like piracy, pornography) -5
Provide access to multiple educational resources. +5	It is not always to configure. -4	All students collaborate at one place, by creating one shared product between them. +4
Total +19	-12	+6

Plus points= +19, Minus Points = -12, Interesting Points= +6
Then, Total PMI score: (+19-12+6) = +13

On the basis of PMI chart given in Table-1, score of +13 is positive. This strongly positive score indicates that multimedia can be used in classroom teaching for making process of teaching learning creative, interesting, collaborative and more fun.

Tips for using this strategy

Following tips are provided to use PMI strategy properly in a classroom setting without any problem or hindrance.

- It can be useful to set a time limit for this process. This encourages people to brainstorm issues without over-analyzing details.
- Plus-Minus-Interesting could be made after a brainstorming. From this you pull 2 or 3 ideas in the narrower selection and score them.
- Use the tool for ideas and propositions, which the group usually doesn't challenge.
- Accept and write up all ideas without judging and criticizing.
- Don't jump back and forth. Step by step, first only positive comments should be collected and recorded. The "pro" of the situation. Once fully explored the group continues with the negatives and so on.
- Avoids natural emotional reaction to an issue.
- Allows you to explore, assess, evaluate, and design a key issue.
- Widens perception and scope, individually and collectively.
- It can be used, at the end of a unit or topic and at the beginning of a learning activity.

Benefits of PMI for students

PMI strategy is useful for all students. Following benefits are given, which indicates that PMI is an evaluating, decision-

making, creative and critical thinking strategy.

- It is logical and clear way to organize and develop ideas or question which will greatly assist students in planning essays, report and research.
- To encourage students to think and reflect on their learning and to look at a question or an issue from a number of angles.
- Easy to learn and encourage students to think broadly and suspend judgment before studying controversial issue.
- Although deceptively simple, this powerful tool is very suitable for groups and for individual work.
- PMI is flexible according to time available; a useful PMI can be complicated in a few minutes or equally be valuable for a group process taking much longer.
- It can be used very successfully as a decision making tool for both creative and strategic thinking.
- To help students evaluate and extend understanding about facts, concepts, thinking processes, and cooperative interactions.
- PMI strategy can be used as a closure activity for students to write down the takeaway or key points of the lesson. It can also be used as a feedback tool and to evaluate our teaching performance.
- It provides a framework for self or peer assessment tasks
- It allows the thinking to be identified and captured for explaining/communicating the reasons for the decision to others.

Conclusion

PMI strategy is a powerful tool both for individual and group work. It helps the teachers to modify their teaching strategies to enable children to improve their creative and critical thinking. During the process of identifying plus-minus-interesting aspects of issues, students view things from a different point of view, think broadly about an issue, have more fun and became critical to social life around them. They

learn and write about something that they use and see in their daily activity and one of actual problems that are faced by the community around them for discussion in the classroom.

References

1. Ahmed TM, Omotunde H. Theories and Strategies of Good Decision Making. *International Journal of Scientific & Technology Research*. 2012; 1(10). Retrieved from: <http://www.ijstr.org/final-print/nov2012/Theories-And-Strategies-of-Good-Decision-Making.pdf>, ISSN:2277-8616.
2. Bennett B, Rolheiser C. *Beyond Monet: The Artful Science of Instructional Integration*. Barrie Bennett; Spiral edition: Toronto, 2001.
3. Conklin MA, Wendy JM. *Strategies for Developing Higher- Order Thinking Skills Grades K-2*. Shell Educational Publishing, 2013.
4. De Bono E. *De Bono's thinking Course*. Ariel Books: London, 1985.
5. De Bono E. *Letters to Thinkers: Further Thoughts on Lateral Thinking*. Penguin Books: London, 1988.
6. Elfita S, Wiwit S. Teaching speaking by combining pmi plus, minus, Interesting and gallery walk strategies for junior High school. *Jurnal Wisuda Ke 48 Mahasiswa Prodi Pendidikan Bahas Inggris*, Publisher: Pendidikan Bahasa Inggris. Retrieved from: [http://download.portalgaruda.org/article.php?article=264022&val=6305&title=TEACHING%20SPEAKING%20BY%20COMBINING%20PMI%20\(PPLUS,%20MINUS,%20INTERESTING\)%20AND%20GALLERY%20WALK%20STRATEGIES%20FOR%20JUNIOR%20HIGH%20SCHOOL](http://download.portalgaruda.org/article.php?article=264022&val=6305&title=TEACHING%20SPEAKING%20BY%20COMBINING%20PMI%20(PPLUS,%20MINUS,%20INTERESTING)%20AND%20GALLERY%20WALK%20STRATEGIES%20FOR%20JUNIOR%20HIGH%20SCHOOL), 2014; 1(1).
7. Fogarty J, Robin, Kern M Gene. *Informative Assessment*. London. SAGE Ltd, 2009.
8. Gitra M, Wiwit S. Comining PMI plus, minus, interest strategy and five whys Strategy for teaching reading comprehension of Expository text in senior high school. *Jurnal Wisuda Ke 48 Mahasiswa Prodi Pendidikan Bahas Inggris*, Publisher: Pendidikan Bahasa. Retrieved from: <http://id.portalgaruda.org/index.php?page=25&ipp=10&ref=browse&mod=viewjournal&journal=6305>, 2014; 1(1).
9. Kurnia E. The effect of using plus minus interesting technique toward students' speaking ability at the second year of state Senior high school 2 Pekanbaru. Published Ph.d Thesis, Department of English Education, Teacher Training State Islamic University of Sultan Syarif Kasim Riau Pekanbaru. Retrieved From: http://repository.uin-suska.ac.id/10079/1/2013_20131042PBI.pdf, 2013.
10. Mirawati, Zul. Improving Student's Speaking ability Through PMI Plus, Minus and Interesting at jounior high Level. *Journal of English Language Teaching*, Retrived from: <http://download.portalgaruda.org/article.php?article=100215&val=1486>, 2013; 1(2).ISSN:2302-3198.
11. Novrianti D. Teaching speaking by combining Plus minus interesting pmi and placemat strategy For junior high school students. *Jurnal Wisuda Ke 48 Mahasiswa Prodi Pendidikan Bahas Inggris*, Publisher: Pendidikan Bahasa Inggris. Retrieved From: <http://www.distrodoc.com/387041-teaching-speakng-by-combining-plus-minus-interesting-pmi-and>, 2015; 4(2).
12. Portmann M, Easterbrook MS. *PMI: Knowledge Elicitation and De Bono's Thinking Tools*. Springer: Current Development in Knowledge Acquisition EKAW'92. Retrieved From: https://link.springer.com/chapter/10.1007/3-540-55546-3_45, 2005; 559:264-282.
13. Sanchez B. PMI- A strategy for improving thinking in the classroom. Retrieved from: <http://www.articledown.com/rss.php>, 2010.
14. Streeter KM. *Critical thinking for Multiple Learning Styles*. Cambridge University Press: Cambridge, 2004.
15. Sharma HL, Pooja. Enhancing student's interest in English language via multimedia presentation. *International Journal of Applied Research*. 2015; 2(1):275-28.
16. Sharma HL, Kiran. Tracing the Conceptual Framework of Multimedia- based Instructional Package for Enhancing English Language Skills. *International Journal of Science and Research*, 2016; 5(2).
17. Sharma, Priyamvada. *Multimedia: Instructional Strategy to Enhance Achievement of Senior Secondary School Students in Business Studies*. *International Journal of Research*. 2017; 4(13):1332-1343.
18. Supartinah. The use of pmi plus, minus, and interesting to develop students' critical thinking through speaking activities. Published Ph.D. Thesis, English education department Graduate school sebelas maret university Surakarta. 2010. Retrieved from: <https://digilib.uns.ac.id/dokumen/detail/15952/The-Use-Of-PMI-Plus-Minus-and-Interesting-to-Develop-Students-Critical-Thinking-Through-Speaking-Activities>.