

ISSN 2278-8808

An International Peer Reviewed

**SCHOLARLY RESEARCH JOURNAL  
FOR INTERDISCIPLINARY STUDIES**



## **Looking at a Research Report through De Bono's Six Frames of Thinking about Information.**

Sunanda Roy  
Assistant Professor,  
Adharsh Comprehensive College of Education and Research, Pune

Lalita Vartak  
Principal,  
Adharsh Comprehensive College of Education and Research, Pune

### **Abstract:**

Research plays a very important role in Teacher Education, since it helps improve the quality of education and molding the future generation. The research report which is a vital part of research makes the readers understand the researcher's thinking process. One is tempted to include all the information one gets in a research report. Edward de Bono, the father of lateral thinking, has provided 'Six Frames' for thinking about and extracting more value from information. This conceptual paper focuses on how one can use the six frames while looking at a research report. These frames can help guide researchers to think about the information they get while writing their research reports and evaluating them. This can improve the quality of research in Teacher Education. Thus these frames help us to focus our attention towards specific parts of the information, assisting us in clearly perceiving the information and guiding our thinking.

---

**Key Words:** Research report, teacher education, six frames of thinking about information.

### **Background:**

✦ Research in Teacher Education:

Research has been defined as the systematic and objective analysis of recording of controlled observations that may lead to the development of generalizations, principles, or theories, resulting in prediction and possibly ultimate control of events. Research makes its contribution to human welfare by countless small additions to knowledge.

Research plays a very important role in Teacher Education, since the quality of teachers has been regularly questioned. In the past research in teacher education has helped Government in framing teacher educational policies. Secondly, the teacher education administrators are helped by the research findings in taking appropriate decisions about structures and patterns of teacher education. Similarly, in the classroom teacher educators find the research conclusions very useful in developing suitable and creative methods of teaching student teachers. It is Teacher Education which trains the teachers who mould the future generation of the nation. Hence the research in teacher education is not only helpful for teachers, but administrators also. It helps in achieving the ultimate goal of any profession i.e. to improve the practice of its members so that the services provided to the clients will have the greatest impact. The clients here are the students – the future generation.

✦ Importance of the Research Report:

The purpose of any Research report is to communicate information which has been compiled as a result of research and analysis of data and of issues. This is also true in case of research reports in the field of Teacher Education. Research reports can cover a wide range of topics, but usually focus on disseminating information with a clear purpose, to a specific audience. A good research report should be a logical representation of the researcher's thoughts. It is through the research report that the researcher can make the readers understand the researcher's thinking process. Hence, one should avoid stuffing the report with unnecessary information.

✦ Thinking about the Information in a Research Report:

It is very tempting to include all the information we get in a research report, as we are surrounded by information. It has never been easier to obtain information thanks to the internet etc. But information by itself is not enough. It is how we look at information that matters. How do we get the most value from the information? Edward de Bono, the father of lateral thinking, has provided 'Six Frames' for thinking about and extracting more value from information.

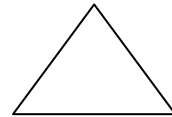
As thinking is very important while preparing a research report one must be aware that the big enemy of good thinking is confusion. The main cause of confusion is trying to do everything at once. The 'Six Frames of Thinking about Information' helps avoid confusion as it directs our attention and thinking about any information by looking at it through one frame at a time. Each of these frames help in preparing the mind and sensitizing it to notice different things given in the information. Thus these frames greatly simplify the way we look at information instead of complicating it. Doing one thing at a time is simpler than trying to do many things and worrying that we might be leaving out something important.

✦ The 'Six Frames of Thinking about Information' given by Edward de Bono:

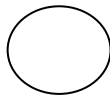
1. **Purpose: The Triangle Frame:** The purpose is to emphasise the huge importance of being clear and laying out the exact basis of your information and your interaction with the information.

Three parts:

- What? Purpose of our information search. What do we want to know?
- Why? Why do we need this information? What is its value and how will it affect us?
- Where? Where should we look for this information? Are we looking in the right places?



2. **Accuracy: The Circle Frame:** Assess the accuracy of the information through internal checking. Check authority and doubts.



3. **Point of View: The Square Frame:** Check if the information is bias or subjective. Check the number of adjectives used in the report. Ideally adjectives should be avoided as far as possible to reduce subjectivity. Check all the opinions regarding the information. All sides of the story or idea should be researched.

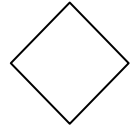


4. **Interest: The Heart Frame:** Find out what interests you in the information.



Sometimes we have to forcefully try to find something interesting it is called 'mining'.

5. **Value: The Diamond Frame:** What is the value of the information? Has it satisfied your need? Has it given you the opportunity to learn more about something you already know? It is a sort of a summary and overview.



- Edward de Bono in his book 'The Six Value Medals' says that we can give six different values to information and has given the following medals for each of the values:
  - a) Gold medal: Values that are human values and directly apply to people. Eg appreciation (positive) humiliation (negative)
  - b) Silver medal: Values that apply to the organisation, business or family. E.g. Profits, loss, market share, brand image.
  - c) Steel medal: Direct quality values. Impact on quality.
  - d) Glass medal: innovation and creative value. What is new here?
  - e) Wood medal: Ecology values, not just nature but the world around us.
  - f) Brass medal: Perceptual values. How will this be perceived?

6. **Outcome: The Slab Frame:** What is the outcome or conclusion regarding the information?




✦ Looking at the Research Report using de Bono's Six Frames:


A research report generally follows a conventional pattern of style and form. The writing should be clear, concise, and completely objective. Using the six frames, the critiquing of a research report may help us develop the competence in our own research and reporting skills. The main aspects included in a research report are:-




- ✦ Background/Introduction
- ✦ Need and significance of the study
- ✦ Statement of the problem
- ✦ Operational definitions of the terms
- ✦ Objectives of the study
- ✦ Assumptions
- ✦ Scope, limitations and delimitations

- ✍ Hypothesis and Research questions
- ✍ Variables of the study
- ✍ Review of related literature
- ✍ Population and sampling procedures
- ✍ Tools of research
- ✍ Research design
- ✍ Pilot testing
- ✍ Analysis of data
- ✍ Findings and conclusions
- ✍ Suggestions and recommendations
- ✍ Contribution to the field of education
- ✍ Summary
- ✍ Bibliography

The table given below shows which frames can be used, to look at and think about the information given in the particular aspect of the Research Report:

Frames of Thinking	Aspects of a Research Report	Explanation
<p><b>The Triangle:</b> <b>The Purpose</b></p> 	<ul style="list-style-type: none"> <li>• Background/ Introduction</li> <li>• Need and Significance.</li> </ul>	➤ The 'Why' i.e. need of the study is given
	<ul style="list-style-type: none"> <li>• Problem of the study</li> <li>• Objectives of the study</li> <li>• Hypothesis and Research questions</li> <li>• Variables of the study</li> </ul>	➤ The 'What' and 'Why' questions to be answered are listed.
	<ul style="list-style-type: none"> <li>• Review of Related Literature</li> </ul>	➤ Shows 'Where' is the gap in the studies which were done earlier.
	<ul style="list-style-type: none"> <li>• Bibliography</li> </ul>	➤ 'Where' one can find more studies and matter on the subject is presented.
<p><b>The Circle:</b></p>	<ul style="list-style-type: none"> <li>• Assumptions</li> </ul>	➤ No bias or subjectivity in the basis on which the study is conducted.

<b>Accuracy</b>	• Variables	➤ Appropriate control of the variables
	• Delimitations of the Study	➤ The boundaries of the study
	• Review of Related Literature	➤ Accuracy in the study cited and their sources.
	• Scope and Population	➤ Accuracy of the subjects selected for the study.
	• Operational Definitions	➤ Clears doubts about terms dealt with in the study.
	• Experimental Design	➤ Validity and Reliability of the study which clears the doubts and authenticates the study.
	• Tools	➤ Accuracy in selection of and usage for the data gathering and analysing instruments used in the study.
	• Data Analysis	➤ Appropriateness and accuracy of the statistical analysis and interpretation.
	• Procedure	➤ Accuracy of sequence/steps followed in the study.
<b>The Square: Point of View</b>  	• Pilot Testing	➤ Views and opinions of similar samples are taken related to the area of study especially in experimental method.
	• Expert's views	➤ Views of experts are taken about tools of data collection, research design etc. are included.
	• Review of Related Literature	➤ Opinions, views and finding of various studies done in the selected area of study are mentioned.
<b>The Heart:</b>	• Background	➤ Should arouse interest in the readers to read further and satisfy their needs.

<b>Interest</b> 	<ul style="list-style-type: none"> <li>• Data Analysis</li> </ul>	<ul style="list-style-type: none"> <li>➤ The interpretation and inference from the data analysis should be presented in a manner that is interesting.</li> </ul>
	<ul style="list-style-type: none"> <li>• Suggestions and Recommendations</li> </ul>	<ul style="list-style-type: none"> <li>➤ Encourage the readers to become interested in further study in the same area.</li> </ul>
<b>The Slab: Outcome</b> 	<ul style="list-style-type: none"> <li>• Testing of hypothesis</li> <li>• Findings and Conclusion</li> </ul>	<ul style="list-style-type: none"> <li>➤ Accepting or rejecting the hypothesis</li> <li>➤ The conclusion of the study based on the findings.</li> </ul>
<b>The Diamond: Value</b> 	<ul style="list-style-type: none"> <li>• Discussion and Contribution to the field of research.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Emphasises the value of the present study by showing: <ul style="list-style-type: none"> <li>➤ How it has gone beyond previously conducted studies. (Glass medal)</li> <li>➤ Which of the previous studies showed similar or opposite results. (Brass medal)</li> <li>➤ How the study has contributed or added to the body of existing knowledge and research. (Gold and Wood medal)</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Summary</li> </ul>	<ul style="list-style-type: none"> <li>➤ The summary of the study with its overview and value of the study. (Gold, Steel and Silver medal)</li> </ul>

✦ Conclusion:

Just as we can decide to look north or south-east, so we can set up a framework for directing our attention towards information. Each of the frames is a direction in which to look. We look and then notice, and note what we see in that direction.

The frames can be used by an individual as a language code between two people or in a group discussion for e. g. ‘Please use your Heart Frame and go through this article as I do not want to miss anything.’ Or ‘Let us use the Circle Frame on those statistics about exercise and health.’

These six frames of thinking about information can help in not only thinking about a research report, but also guide researchers including those in Teacher Education to think about the information they get while writing their research reports. This can lead to the improvement in the quality of research. They can also be used for evaluating a research report. Thus these frames help us to focus our attention towards specific parts of the information, helping us perceive the information more clearly and guide our thinking.

**Selected References:**

**Books:**

Best, J. B., & Kahn, J. V. (2005). *Research in Education*. (9<sup>th</sup> ed.). New Delhi: Pearson Education Pte. Ltd.

De Bono, E. (2008). *Six Frames for Thinking about Information*. London: Vermilion.

Upasani, N. K. (1987). *Conducting Educational Research*. Pune: Kalpana Mudranalaya

**Websites:**

Unilearning. (2000). *Report Writing: Purpose*. Retrieved, December 12, 2011, from <http://www.unilearning.uow.edu.au/main.html>.