



EVALUATING A RESEARCH REPORT USING EDWARD DE BONO'S SIX FRAMES OF THINKING ABOUT INFORMATION

Dr. Lalita R. Vartak¹ &

Dr. Sunanda Roy² (Page 112-119)

Adarsha Comprehensive College of Education
and Research, Pune

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ABSTRACT

Generally research is pursued for obtaining degrees, awards or grants. The Research Report is the concrete reflection of the research study. Hence it becomes imperative to evaluate the scientific quality of the research report. The criteria for assessing and evaluating information in a research report are very comprehensive and require proper evaluation tools with clear cut dimensions. Hence the need for all inclusive tools for assessing and evaluating the research report. In the present paper the authors have attempted to prepare a series of rating scales for evaluating a research report using Edward de Bono's 'Six Frames of thinking about Information'. 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. This can be useful in the context of evaluating a research report.

Keywords: Evaluation, assessment, research report, Edward DeBono's Six Frames of thinking about information, rating scale.



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Background:

Assessment and Evaluation:

Many people have trouble in understanding the terms assessment and evaluation, due to lack of knowledge about these two. For a layman, the terms assessment and evaluation are one and the same thing, as both are used to analyze and gauge product, process and metrics. However, if you understand the true meanings of these two you will find that they are different. **Assessment** is defined as a process of appraising something, whereas evaluation focuses on making a judgment about values, numbers or performance of someone or something.

The significant differences between assessment and evaluation are discussed in the points given below:

1. The process of collecting, reviewing and using data, for the purpose of improvement in the current performance, is called assessment. A process of passing judgment, on the basis of defined criteria and evidence is called evaluation.
2. Assessment is diagnostic in nature as it tends to identify areas of improvement. On the other hand, evaluation is judgemental, because it aims at providing an overall grade.
3. The assessment provides feedback on performance and ways to enhance performance in future. As against this, evaluation ascertains whether the standards are met or not.
4. The purpose of assessment is formative, i.e. to increase quality whereas evaluation is all about judging quality, therefore the purpose is summative.
5. Assessment is concerned with process, while evaluation focuses on product.
6. In an assessment, the feedback is based on observation and positive & negative points. In contrast to evaluation, in which the feedback relies on the level of quality as per set standard.
7. In an assessment, the relationship between assessor and assessee is reflective, i.e. the criteria are defined internally. On the contrary, the evaluator and evaluatee share a prescriptive relationship, wherein the standards are imposed externally.
8. The criteria for assessment are set by both the parties jointly. As opposed to evaluation, wherein the criteria are set by the evaluator.
9. The measurement standards for assessment are absolute, which seeks to achieve the quintessential outcome. As against this, standards of measurement for evaluation are comparative, that makes a distinction between better and worse. (Surbhi, 2016)

Importance and need of Evaluation in Research:

Generally research is pursued for obtaining degrees, awards or grants. The Research Report is the concrete reflection of the research study. Hence it becomes imperative to evaluate the scientific quality of the research report. The broad criteria for evaluating a research report can be listed as follows:

- Clear and relevant to the context and field of study in which the findings and conclusions of the research can be applicable.
- The entire course of the study should be reliable and valid. This will ensure the reliability of the findings and conclusions.
- A research work should be significant and satisfy the needs of the population and factors related to the field under study.

- The study should follow the current guidelines and norms of conducting research since it would be used as reference for future studies.
- The thoughts of the researcher should be clear and comprehensible to the readers and other researchers, so that holistic judgements can be arrived at without misinterpretations.
- Apart from being technically of high quality the researcher must ensure that research ethics have been properly followed.

These criteria are very comprehensive and require proper evaluation tools with clear cut dimensions for evaluation. Hence the need for all inclusive tools for assessing and evaluating research.

Rating Scales:

There are many tools that can be used for assessment and evaluation like examinations, check lists, rating scales, rubrics, portfolios etc. Among the tools used for assessment and evaluation is the rating scale. Rating scales involves qualitative description of a limited number of aspects of a thing or of traits of a person. The classifications may be set up in five to seven categories. The rater puts a check in the blank or category before the characteristic or trait which is described in words or phrase (Best & Kahn, 2005).

Description of the Frames and the Rating scale:

The research report is evaluated based the information it provides to the reader. 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.

Given below are the descriptions of the frames which can be used, to look at and think about the information given in the particular aspect of the Research Report. It is followed by the rating scale corresponding to the respective frames:

✦ 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.

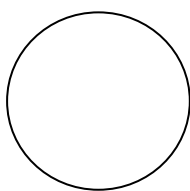


Three parts:

- 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?

Sr.No.	Aspect of the Research Report	Criteria	1	2	3	4	5
1.	Background/ Introduction	Forms a well-defined basis regarding the study					
2.	Need and significance	Clearly explained					
3.	Statement of the problem	Adequately framed/constructed					
4.	Objectives of the Study	Are specified					
5.	Hypothesis/ Research Questions	Clearly stated and can be tested/ Are linked with the need and significance of the study					
6.	Research Questions	Specific and purposeful questions are raised					
7.		Are related to the problem					
8.		Are framed appropriately					
9.	Variables	Are relevant to the scope of the study					
10.	Review of Related Literature	Rational selection of the Theoretical framework					
11.		The theoretical framework matches the purpose of the study					
12.		Appropriate selection of research literature with proper citations					
13.	Bibliography	Inclusion of a variety of relevant literature for further study					

2. Accuracy: The Circle Frame: Assess the accuracy of the



information through internal checking. Check authority and doubts.

Sr. No.	Aspect of the Research Report	Criteria	1	2	3	4	5
14.	Title	Is precise reflecting the variables in the study					
15.	Assumptions	Are objective and based on previous studies					
16.	Variables of the study	Are appropriately controlled by the design of the study					
17.	Scope and Delimitations of the Study	The boundaries of the study are well defined					
18.	Review of Related Literature	Is properly selected from authentic sources					
19.	Population and Sample	Precise subjects are selected for the study					
20.	Operational definition	The terms related to the study are defined clearly according to the scope of the study					
21.	Type of Research	Meticulous selection of the type and approach of the study					
22.	Method of Research	The method/ methods of the study are selected appropriately and described properly					
23.	Tools	Reliable and valid tools used in the data collection					
24.	Data Analysis	Appropriate use of quantitative and or qualitative approaches for data analysis					
25.	Procedure	The sequence/ steps followed in the study are accurate and appropriate.					

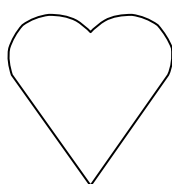
3. Point of View: The Square Frame: Check if the information is bias or subjective.

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.



Sr. No	Aspect of the Research Report	Criteria	1	2	3	4	5
26.	Pilot Testing	Views of similar samples taken to refine the study					
27.	Expert's Views	Inclusion of views from experts regarding the tools used in the study					
28.	Review of Related Literature and Discussion	Inclusion of studies that confirm as well as contradict the findings of the current research					

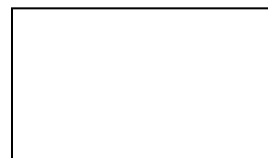
4. Interest: The Heart Frame: Find out what interests you in the information.



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

Sr. No	Aspect of the Research Report	Criteria	1	2	3	4	5
29.	Title	Creates curiosity regarding the research study					
30.	Background	Arouses interest in the reader to be curious about the research study					
31.	Data Analysis and presentation	The presentation of the inferences from the data analysis is presented in an interesting manner					
32.	Suggestions and Recommendations	Encourages readers to undertake further research in the area of the study					

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

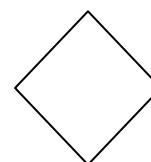


Sr. No.	Aspect of the Research Report	Criteria	1	2	3	4	5
33.	Testing Hypothesis	of	The report clearly states whether the hypotheses are rejected or accepted				
34.	Findings and Conclusions	and	The conclusions are appropriately derived from the findings				
35.	Research Report		The report is well organized and systematic				

6. **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:

- Gold medal: Values that are human values and directly apply to people. Eg appreciation (positive) humiliation (negative)
- Silver medal: Values that apply to the organisation, business or family. E.g. Profits, loss, market share, brand image.
- Steel medal: Direct quality values. Impact on quality.
- Glass medal: innovation and creative value. What is new here?
- Wood medal: Ecology values, not just nature but the world around us.
- Brass medal: Perceptual values. How will this be perceived?



Sr. No.	Aspect of the Research Report	Criteria	1	2	3	4	5
36.	Discussion and Contribution to the field of research.	and	The study is innovative and has gone beyond previously conducted studies. (Glass medal)				
37.			Mention of previous studies showed similar or opposite				

38. results.(Brass medal)
Contributes to the improvement in the area of research (Steel and Silver Medal)
39. The study has contributed or added to the body of existing knowledge and research. (Gold and Wood medal)
40. Summary The summary of the study includes its overview and value of the study. (Gold, Steel and Silver medal)

(40 x 5) Total out of 200

Qualitative Remarks: _____

Conclusion:

The rating scale based on De Bono's 6 Frames of looking at information consists of both quantitative evaluation (marks), qualitative evaluation (criteria) with a qualitative remark i.e. judgement. Thus it is a very comprehensive evaluation tool for evaluating a research report in teacher education. The use of such tools can be used not only for evaluating, but also for guiding budding researchers as a guideline regarding what a research report should contain. This will no doubt increase the quality of future research.

References

- Best, J. B., & Kahn, J. V. (2005). *Research in Education*. (9th ed.). New Delhi: Pearson Education Pte. Ltd.
- De Bono, E. (2008). *Six Frames for Thinking about Information*. London: Vermilion.
- Surabhi, S. (2016). *Difference between assessment and evaluation*. Retrieved October 9, 2016 from <http://keydifferences.com/difference-between-assessment-and-evaluation.html>