



Evaluate articles about the universe

Who are we? Where are we? and Are we alone?

Students who understand how their work is assessed are at an advantage. In this activity, students examine assessment criteria, and evaluate three Catalyst articles.

Outcomes

Students will be able to:

- Apply general marking criteria to a scientific article
- Assess and justify marks awarded

Resources required

Student worksheet

Sample assessment criteria for students

Computer access to articles, or copies can be made - each is approximately 3 pages long.

Time required

60 minutes

Outline of the activity

Students work in groups of 3.

Part 1 Each group is allocated three copies of the sample assessment criteria (student handout), one copy of the assessment grid (student worksheet) and one copy of each of the 3 articles. Individually they read an article, award marks according to the assessment criteria and make brief notes justifying the mark awarded. They should aim to do this within 10 minutes. They rotate the articles within the group and repeat the evaluations. At the end of this stage each person in the group should have 3 sets of marks with brief notes.

Part 2 The aim of this part of the activity is for students to agree an overall mark for each

article by examining the marks each person awarded for each of the categories. The justification notes will be valuable at this stage.

The plenary to the activity could be class discussion of final marks awarded by each group for each article plus clarification of any points raised interpreting the assessment criteria.

Tips and strategies



Evaluation of writing may be 'analytic' or 'holistic'. Holistic evaluation gives a grade based on general impression.

Giving a grade according to predetermined criteria, under a number of main categories (structure, content, language, form) is the basis of analytic evaluation. When summing up an analytic evaluation, the final grade sometimes comes out much lower than expected. In this case, the analytic evaluation may not be sufficient and needs to be supplemented by holistic evaluation.

It is valuable to engage students in evaluation in different learning situations. The level of participation can increase as students get more experience. Initially, the teacher provides the criteria and the class can use them to analyse texts written by students from the class or from elsewhere. Later, students can try to build their own list of criteria.



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Briefing sheet

Part 1

Spend up to 10 minutes reading the sample assessment criteria and discuss as a group. Evaluate 3 articles and award marks according to the set criteria. Assume the total marks to be 100 and note the weighting of each category. Make brief notes justifying your marks. You will have 10 minutes to read and assess each article.

Part 2

Allow up to 20 minutes to complete this part of the activity. Each person in the group will have 3 sets of marks and brief notes. Collectively you have to agree on a final mark for each article. You will need to go through each category of each article. Where marks differ, discuss this using your notes to arrive at an agreed mark for all categories, and final marks for each of the 3 articles.

Category	Weight	Article 1 (mark & notes)	Article 2 (mark & notes)	Article 3 (mark & notes)
Structure	10%			
Formatting	10%			
Language	15%			
Illustrations	15%			
Abstract	5%			
Scientific content	30%			
Conclusion	5%			
Bibliography	5%			
Individuality	5%			

Total _____ %

Total _____ %

Total _____ %



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Sample assessment criteria

Working in pairs, assess your articles according to the criteria in the table below. You will need to refer to the criteria you were given before you wrote the article to complete this task.

Category	Weight	Criteria	Mark
Structure	10 %	The article is structured according to the criteria given at the start of the assignment. There is a title, an abstract, the author's name and institution are given, there is an introduction, the main body is structured under appropriate sub-headings, and there is a conclusion and a bibliography.	/10
Formatting	10 %	Formatting is consistent throughout and adheres to the formatting criteria given at the start of the assignment. Attention should be paid to font size and style, headings, line spacing, and numbering/bullet points if used.	/10
Language	15 %	The writing is clear and accessible. Spelling, punctuation and sentence structure are correct throughout.	/15
Illustrations	15 %	Illustrations have been used appropriately for the article. Illustrations are placed at appropriate points in the article. There is the right number of illustrations (not too few or too many).	/15
Abstract	5 %	The abstract is between 150 and 200 words and is in a single paragraph. There are 1 or 2 sentences of introduction. It has a condensed description of the contents of the article. It outlines the main conclusion(s). It encourages the reader to read the whole article.	/5
Scientific content	30%	The introduction clearly outlines the content of the article. The article uses appropriate information from a range of sources. All points in the original criteria are covered in the article. Content is presented in a clear manner and logical order. The author has added their own discussion – not just replicating content from the sources. The writing is accurate and reliable, as well as interesting.	/30



Conclusion	5 %	The conclusion summarises the key points of the article and explains, with reasoning, the importance of these key points. The conclusion identifies questions raised by the author that could direct further research/reading.	/5
Bibliography	5 %	The formatting adheres to the criteria laid out at the start. If any images have been taken from other sources, these are included in the bibliography. Numbered in-text citations have been used.	/5
Individuality	5 %	The writing shows some creativity and individuality from the hand of the author.	/5

Total mark: _____ %