

HOW TO WRITE AN EVALUATION

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INTRODUCTION

We are often expected to write evaluations. The evaluations could be of our own work, or of the work of others. These notes explain how to write a critical evaluation.

DEFINITION

"Evaluate:

1. To ascertain or fix the value or worth of
2. To examine and judge carefully"

[Dictionary of the English Language].

"Evaluate. This involves making informed judgements about products and processes against clear criteria. The criteria may be given in the question or the candidate may be required to formulate them" [AQA].

"Evaluation ... is about making judgements upon the systems you have created ... Evaluation is the making of judgements involving the use of criteria as well as standards. The judgement may be either quantitative or qualitative, and you need to determine the criteria. Evaluation involves making judgement about ideas, your working IS [Information Systems] solutions and the methods you used. ... Evaluation is a more difficult writing genre ... so think words like: appraise, assess, compare, conclude, contrast, criticise, discriminate, evaluate" [ELIMBARI].

EXAMPLES

Example 1 You are looking to buy a new jacket. You decide on the following *criteria*:

- a** it must fit
- b** it must keep you warm and relatively dry in the winter months
- c** it must be more practical than fashionable
- d** it must cost no more than £100

You have found three possible jackets.

<i>Criteria</i>	<i>Jackets</i>		
	A	B	C
a Size	ok	one size too large	ok
b Warm & Dry	Sheepskin lined leather flying jacket	Heavy-duty cotton outer, insulated middle, cotton inner.	Heavy-duty cotton outer, insulated middle, cotton inner.
c More practical than fashionable	Generous overlap prevents drafts, brass zips, and large useful pockets both inside and out.	Army style, good overlap prevents drafts, good weather protection with hood, large useful pockets both inside and out.	Army style, good overlap prevents drafts, good weather protection with hood, large useful pockets both inside and out.
d Price	£405	£80	£98

Evaluation. Jacket A's size is ok, it is warm (sheepskin lined) and relatively waterproof (leather). It is practical (windproof and useful pockets) but its price is more than £100 (£405) and so Jacket A is rejected.

Jacket B is warm (insulated middle lining) and relatively waterproof (heavy duty cotton). It is practical (windproof and useful pockets) and its price is less than £100 (£80). But its size is one too large and so Jacket B is rejected.

Jacket C's size is ok, it is warm (insulated middle lining) and relatively waterproof (heavy duty cotton). It is practical (windproof and useful pockets) and its price is less than £100 (£98). It meets all the criteria and so Jacket C is the jacket of choice.

In writing the evaluation we

- *compared* products with clearly stated criteria
- came to *conclusions* with reasons

Example 2

An assignment brief usually provides criteria (marking scheme) by which your work is marked (evaluated) by your teachers. You can use the marking scheme criteria to evaluate your own work. You can also make up some criteria of your own.

Your assignment brief says: "Write a report on the place of formal methods in the specification and design of computer systems."

The given *Criteria for Assessment* is

- a** Describe the role of specifications in systems and programs.
- b** Describe what formal methods are.
- c** List the advantages and disadvantages of formal methods.

In addition, you might add some criteria of your own:

- d** Correct spelling and grammar used throughout
- e** Presentation - like a book
- f** Harvard Standard for Citation and Referencing used throughout

You write:

1 A specification is an agreement between the stake holder and the developer on what the proposed computer program will deliver. It forms the basis for the program's design and provides the criteria against which the finished program is judged. If there are mistakes in the specification then these mistakes get propagated through the design and into the finished program [NORCLIFFE & SLATER 1991].

2 Formal methods use mathematics in the specification, design, implementation and verification of computer programs. The mathematics used includes the language of sets (collections of similar objects), logic (statements that are either true or false) and structures (that bind together data and truths about their relationships) [JACKY 1997].

3 Advantages of formal methods include precise and clear specifications, provably correct designs and implementations, discovery of errors before they become embedded in designs and implementations. Disadvantages of formal methods include not widely understood and used, a notation that takes some getting used to, delays the start of program writing when managers measure progress by the number of lines of program code written [STEPNEY].

REFERENCE LIST

- NORCLIFFE A. & SLATER G 1991 Mathematics of Software Construction Ellis Horwood
JACKY J. 1997 The Way of Z Cambridge University Press Cambridge UK
STEPNEY S. <<http://www-users.cs.yourk.ac.uk/~susan>> accessed June 2004

Evaluation. The role of specifications in systems and programs (a statement of what the finished program is to do, a contract between stake holder and developer, criteria by which the finished program is measured) is described in paragraph 1.

A description of what formal methods are (the use of mathematics to specify, design and implement programs) is described in paragraph 2.

The advantages (precision, clarity, early error detection) and disadvantages (not widely used and understood, terse notation) of formal methods are described in paragraph 3.

Therefore the given criteria for assessment are all met.

Further, a well-written assignment should be largely free from spelling and grammatical errors, look like a textbook, and use the Harvard standard for citation and referencing. The text was spell and grammar checked using MS Word and so is largely free from spelling and grammatical errors. But the text did not come with headings, bullet point lists and illustrative examples, and so improvements could be made to make it more like a textbook. Sources of ideas were quoted alongside the text and again more fully in the Reference List and so the Harvard system was used throughout, but page numbers of textbooks referred to were left out.

In writing the evaluation we

- used the *given criteria* and made some up of our own regarding quality
- *compared* what we had done with what was required
- stated criteria that *had been met* and why
- stated criteria that *had not been met* and why

CONCLUSION

Evaluation involves making informed judgments about products against clear criteria.

REFERENCE LIST

AQA *GCSE Engineering (Double Award) Teachers Guide* <<http://www.aqa.org.uk>>
accessed 5 Nov 2004

ELIMBARI *SMCC Online*
<http://www.smcc.qld.edu.au/ipt/I_GUIDE_IS/SDC/1_evaluation_intro.htm>
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DICTIONARY OF THE ENGLISH LANGUAGE 2000 Houghton Mifflin quoted in
<<http://www.dictionary.com>> accessed 8 Nov 2004