

KK13 — Criteria for evaluating design ideas and the efficiency and effectiveness of solutions

Analysis & Design · Comprehensive exam study guide

Evaluation criteria are **measurable statements** used to judge ideas and solutions. You must know the difference between **efficiency** and **effectiveness** and write good criteria — this links forward to Development KK08/09.

Efficiency vs effectiveness

Concept	Means	Example measures
Effectiveness	How well the solution achieves its purpose/meets requirements.	Completeness, accuracy, usability, accessibility, communication of information.
Efficiency	How well it uses resources (time, effort, cost, processing).	Speed of operation, cost, processing time, productivity gains.

Writing good criteria

Good evaluation criteria are **specific and measurable**, often phrased as questions: 'Does the solution let a user complete a booking in under three steps?' Vague criteria ('is it good?') cannot be answered with evidence.

EXAM TIP

Phrase criteria so they can be answered with evidence (yes/no or a measurable value). Tie each to a requirement.

Key definitions to memorise

Effectiveness	How well a solution achieves its intended purpose and meets requirements.
Efficiency	How well a solution uses resources such as time, effort, cost and processing.
Evaluation criteria	Specific, measurable statements used to judge design ideas or a finished solution.

Exam technique

EXAM TIP

- Remember: effectiveness = does it DO the job well; efficiency = does it use RESOURCES well.
- Write criteria as measurable questions linked to requirements.

COMMON MISTAKES

- Swapping efficiency and effectiveness.
- Writing vague criteria that can't be measured.

Quick revision checklist

- I can distinguish efficiency and effectiveness with measures of each.
- I can write specific, measurable evaluation criteria.

Exam practice — questions & model answers

Q1. Distinguish between the efficiency and the effectiveness of a solution.

Distinguish · 2 marks

Model answer

- Effectiveness is how well the solution achieves its purpose/meets requirements (1);
- efficiency is how well it uses resources such as time, cost and processing (1).

Q2. Write one effectiveness and one efficiency criterion for an online booking solution.

Write · 2 marks

Model answer

- Effectiveness: 'Can a user successfully complete a booking without error?' (1).
- Efficiency: 'Does a booking page load within three seconds?' (1).