

2025 CpSc H Q4

Section: Software Design & Development

Topic: Development Methodologies (Agile vs Iterative)

Question Summary

Explain why the agile development methodology would be more suitable than the iterative methodology for a client known to change requirements during development.

Worked Solution

- Frequent change is expected and welcomed in Agile. Agile plans short iterations (sprints) with regular reprioritisation; a changing backlog means new/changed requirements can be scheduled almost immediately.
- Continuous customer collaboration. Agile embeds the client in reviews, demos, and backlog grooming, so feedback is captured early and often — reducing rework.
- Incremental delivery of working software. Each sprint aims to deliver a potentially shippable increment. This lets the client see and test real features, which surfaces new requirements safely.
- Lower risk of building the “wrong” thing. Because Agile adapts every sprint, scope creep becomes managed scope change; learning is fed back quickly.
- Iterative (in the SQA sense) still has larger upfront plans and phase gates. Changes typically defer to later iterations or cause rework across analysis/design/test documents, so it’s less flexible for a frequently changing client.

Model exam phrasing you could use

Agile is more suitable because it embraces changing requirements through short sprints and regular client reviews, allowing rapid reprioritisation and incremental delivery. Iterative has longer phases and is less responsive to frequent change, which increases rework for this client.

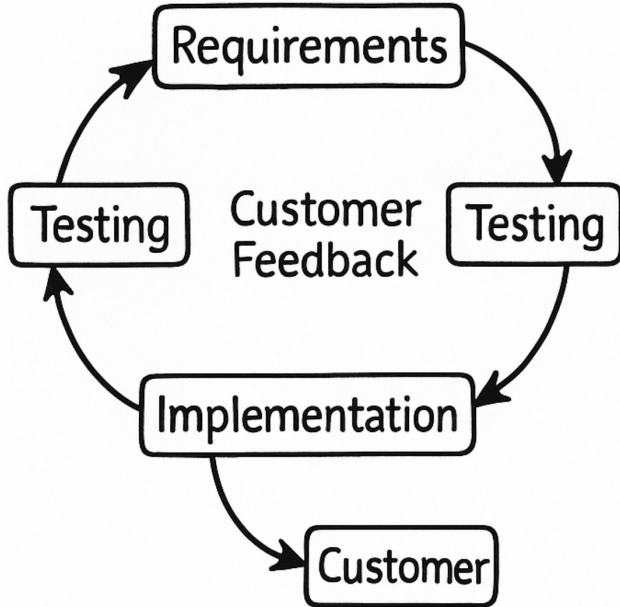
Final Answer

Choose Agile: it supports frequent requirement changes via short iterations, continuous client involvement, and incremental delivery — reducing rework and ensuring the product fits evolving needs better than Iterative.

Revision Tips

- Match methodology to context: volatile requirements → Agile; stable, well-understood requirements → Iterative/Waterfall hybrids may suffice.
- Remember Agile keywords: short sprints, backlog, reviews/demos, stand-ups, continuous feedback.
- When a 1–2 mark ‘explain’ is asked, state the reason and the benefit (cause → effect).

AGILE



ITERATIVE

