



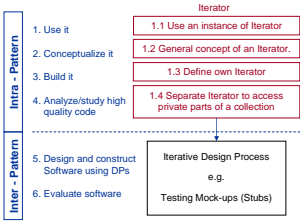
Results from the 5th "Killer Examples" for Design Patterns Workshops

www.cse.buffalo.edu/faculty/alphonc/KillerExamples

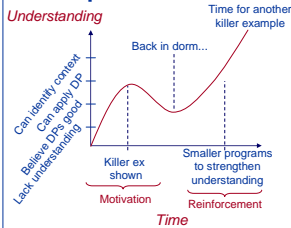


OOPSLA 2002, Seattle • OOPSLA 2003, Anaheim • PREVIOUS WORKSHOPS • OOPSLA 2004, Vancouver • OOPSLA 2005, San Diego

Pedagogical Process



Caspersen's Curve



Killer Example

The Jargon File defines a "killer app" as an "application that actually makes a sustaining market for a promising but under-utilized technology."

In the same vein, we take a "killer example" to be one which provides clear and compelling motivation for some concept.

Killer Examples must be an integral component of a larger, cohesive OO curriculum.

They do not exist in a vacuum, but rather as part of a deliberate pedagogical progression that drives from motivation to comprehension.

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Fundamental Object-Oriented (OO) principles and Design Patterns

A workshop to share ideas, specifically "killer examples", for primarily in an objects-first CS1-CS2 sequence.

Design Patterns can be used to illustrate fundamental Computer Science principles.

Design Patterns change and shape the way we look at problems.

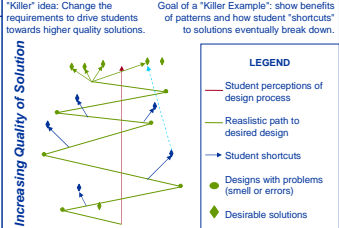
Motivation for Teaching Design Patterns

Systematic way to solve complex problems
Solutions that scale up
Design patterns support building of: correct, robust, flexible & extensible software in an efficient manner (time & \$).

Underlying principles supporting our goals:

- Abstraction
- Invariant/variant decoupling (commonality/variability analysis)
- Parameterization
- Extreme encapsulation

Problem Solving Process



Wong's Mapping Underlying Principles

