

Code Champion

Presented by
Sundaresan K
Principal, Education & Research
Infosys Limited



Challenges

Diversified

- motivation level
- learning styles
- group size
- infrastructure
- content
- assessment



Brain map



Expectations

Understanding the Problem

Interpreting Design

Design suitable logic

Develop maintainable code

Review and test

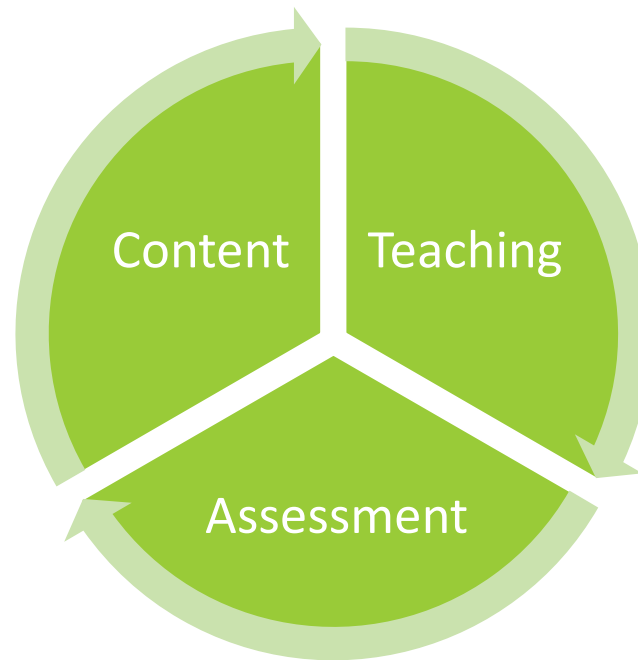
Optimization

Refactor

Learnability



Education Eco system



Content

External

Online

Text books

In house

SME-Project /Case
study based

Video recorded

Assignments Fully
solved/Partially
solved/Unsolved

Factors

Scope

Depth

Content

- Case study based
- Problem-concept-application
- In house content
- Web based content
- Assignments (fully solved, partially solved, unsolved)
- Complexity gradient: (Simple, Medium, Complex)



Teaching

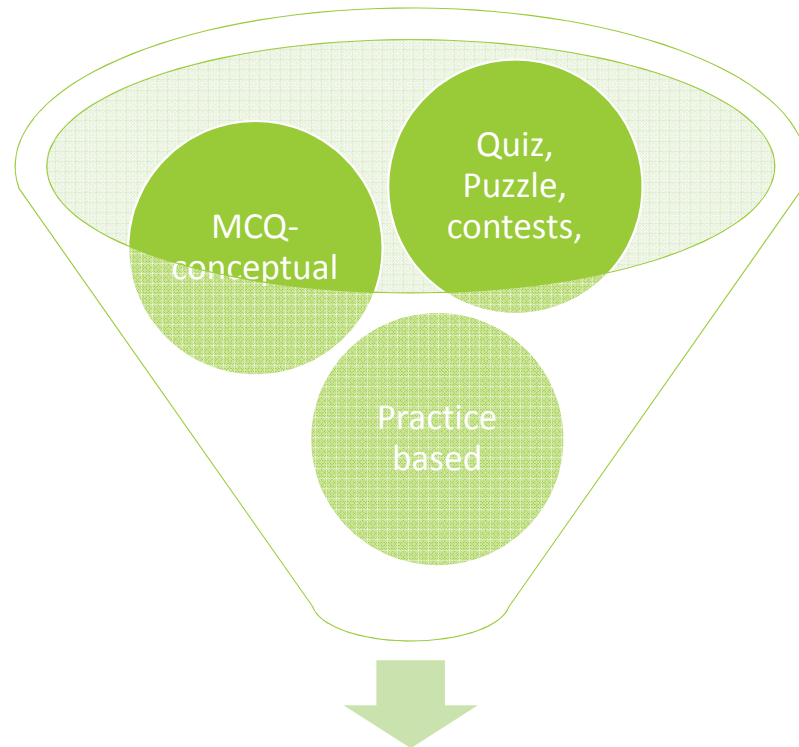
Less Instruction and More Construction

Demonstration than lecturing

Flip learning

Peer learning

Self learning



Assessment

resources

- **Class Central:** MOOC aggregation, learner feedback and MOOC ratings.
• <https://www.class-central.com/>
- **Code Academy:** Good examples of teaching coding to novice learners
• <http://www.codecademy.com/>
- **Treehouse:** Good examples of teaching coding to novice learners
• <https://teamtreehouse.com/>
- **Plural Sight:** Comprehensive technical courses
• <http://www.pluralsight.com/>
- **Lynda:** Courses on art, design, computer science and many soft skills topics
• <http://www.lynda.com>

resources

- **Learning How to Learn:** Excellent course in Coursera
 - <https://www.coursera.org/learn/learning-how-to-learn>
- **edX:** MIT and Harvard's MOOC initiative
 - <https://courses.edx.org/>
- Excellent courses on **Computational Problem Solving**
 - - MITx - 6.00.1x: Introduction to Computer Science and Programming Using Python
 - - MITx - 6.00.2x: Introduction to Computational Thinking and Data Science
- **Udacity:** Excellent **Nano degrees** concept
 - <https://www.udacity.com/nanodegree>
- **SchoolYourself:** The state-of-the-art in online math education
 - <https://schoolyourself.org/>



summary

Mindset Change

“Sylvan Goldman’s Cart- 1936”



THANK YOU