

## Exploration and Reform of Fundamentals of Program Design Based on Application Ability

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**Abstract :** The rapid development in the fields of computer science and information technology presents new challenges and opportunities for foundational programming education. Traditional programming courses often focus heavily on theoretical knowledge while neglecting students' practical programming and problem-solving abilities. This paper delves into the significance of programming education based on application abilities and provides a detailed explanation of a reform approach that incorporates project-driven teaching to nurture students with more comprehensive computer science skills.

**Keywords :** fundamentals of programming, application abilities, pedagogical reform, program design

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