

# Programming Independence Evolution

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Education in Vietnam is among the top priorities to everyone. Studies show that spending towards education in Vietnam is larger than other countries, being 10% in 1999 in 1 household as opposed to Australia being 1.1 % in 2003 – 2004. Education reform is currently an issue that affects the way all students learn. In schools today, students are dependent upon others, especially their teachers. This is a problem that affects both teachers and students. In a 45-minute class with 45 students and one teacher on average, teachers are unable relay all the knowledge necessary to every student, especially in an IT class, where one period has to include both theories lessons and exercises where teachers also have to judge the students' work. So as a result, the efficiency of the class is decreased. P.I.E – Programming Independence Evolution, aims to make communication and interactions easier, more convenient and saves time in class. Our system also gives students initiative in their studies, by using the system, students are more independent, enthusiastic while studying IT. Our approach to this research is testing the system in class. Controlled variables: - Location: In the cities, the mountains and the plains - Class: High schools, secondary schools and clubs - Age: 13-16 years old - Ethnicity: Kinh, Tay, Nung, Hmong, Thai,... The system was able to help students do exercises, not having to wait for teachers to help them. The teachers were able to manage the class more effectively. By using the system, the class efficiency increased significantly, being able to complete more exercises. In conclusion, the system is a useful tool for students to go about building independence in their studies, and help teachers improve class efficiency and change how students study.