

A Study on Adaptive Educational Tracking System

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One of the purposes of universities is to train students with academic-oriented aptitude, so that the students after graduation can join research and development teams in various institutions. However, in Taiwan, it occurs recently that many college graduates cannot find a suitable job, while many companies cannot find suitable employees. The reason for this unbalanced situation may be traced back to the education reform starting in 1994 in Taiwan. The policy of broadly increasing the number of universities makes the number of college graduates increased tremendously.

To resolve the problem on the discrepancy between learning and working, we should first understand the manpower needs in Taiwan. On the other hand, we should respect the learning style, aptitude, interest, ability, and development of students. The aptitudes and the interests of students should be appropriately accommodated, so that students would be learning effectively with passion. To attain the goals of enhancing the national competitiveness and help students attend adaptive development, it is necessary that the needs of industry and the adaptation of education are considered simultaneously. Developing a suitable educational tracking system adaptively is the main goal of this project.

The objective of adaptive tracking system is to provide appropriate curriculum for every student according to their aptitude, interest, and capability. The branching can be imposed according to the traits of either academics-oriented or technology-art-oriented. It is also possible to design curriculum according to the eight intelligences categorized by Prof. Howard Gardener from Harvard University.

In this project, we should start from considering students' career development, while taking the need of national manpower into account. The requirements of various companies on knowledge, background, or capability for their employees shall be investigated. The proper adaptive educational tracking system in Taiwan shall be then proposed based on these investigations and the traits of students and people in Taiwan.