

Chapter 2

Integration of Technical Teaching and Assessment Based on the Four E Framework

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ABSTRACT

In higher education, the evaluation of students' academic performance has always been a very challenging task. The lecturer's summative evaluation of the students is often carried out at the end of the semester or after the phased study. Throughout their studies, students will encounter challenging tasks that require supervision and helpful intervention. Through empirical cases, we found that students' academic performance is closely related to their intrinsic motivation and self-efficacy. Our suggestion after empirical research is to embed assessment metacognition into some courses as a basis for designing course content. Some of our research on intrinsic motivation includes 1) adding game-based reward strategies to the curriculum, 2) proposing some collaborative group projects to encourage active participants, 3) encouraging interaction with different cultural backgrounds.

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INTRODUCTION: SUMMARY OF REVIEW

Whether the No Child Left Behind (NCLB) developed by the United States or the educational accountability system of other countries is, assessment is considered as a measurement tool for teacher's performance and students' mastery of knowledge. However, due to individual different background and competency, different individuals should have the right to develop their nature and abilities within the framework of equal education. The same assessment standard for teenagers from wealth and deprived families don't real reflect their real progress and talents based their environment. Based on previous research and our empirical study, in order to promote the equity of education and the rationality of assessment, this chapter contributes three main points: 1. Assessment can be divided into general assessment and special advantage assessment, using difficult questions without rewards as a means to stimulate students' intrinsic motivation. So as to help those gifted children who have certain advantages and hope for greater improvement to the greatest extent in particular industry. 2. Establish an efficacy system based on self-assessment and feedback to help students develop self-regulation in a non-interactive environment. 3. Help students offload redundant internal load through advanced technology e.g., software and devices. Students can achieve self-learning training and optimization efficiency through retrieval training and data classification. This Meta-cognition strategic and device can be expected to address the gap of physiological and meta-cognition differences.

BACKGROUND

Equity in education enables every student to enjoy a bright future, and the evaluation of students' academic performance is a measure to examine and analyze the success or failure of various educational means and educational strategies. The U.S. federal government has spared no effort in promoting equitable education since the end of last century. From the Clinton administration's "Educational Excellence for All Children Act of 1999" to the current Bush administration's "No Child Left Behind Act of 2001. (United States, 2001), an act introduced in the United States in 2001, has had a profound and lasting impact on early childhood education in the public education sector and preschool. Given NCLB's latest version of "Every Student Succeeds Act "(United, 2015), ESSA could have important implications for early childhood education in the years ahead due to the Act's unprecedented emphasis on teenage and adolescent. Basically, there is no deviation from the federal government's requirement that every funded school must produce students who meet minimum academic requirements. It can even be said that the "Don't Leave Children Left Behind Act" is the latest version of the "Elementary and Secondary Education Act" (National Education Association [NEA], 2002a.

As a result of the reforms to children's services mentioned in the UK's 2003 Green Paper on Education, "Every child matters"(Great Britain. Parliament. House of, 2007), the Department for Education and Skills (DfES) has introduced the Removing barriers to achievement initiative for students with special educational needs (SEN). The basis of this bill is to require schools to improve education standards and teachers, and to enhance students' confidence to achieve the purpose of progress in collaboration.

The UK Department for Business, Innovation and Skills (BIS) published on 16 May 2016 "Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice "(Great Britain. Department for Business et al., 2016) (Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice) Higher Education White Paper. Following the successful transformation

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