

## Peer Mentorship as Remedy for Student Diversity in Electrical Engineering Programme

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The students of IVE Electrical Engineering Programme come from a diverse educational background, including Form 5, Form 7, Foundation Diploma, Diploma of Vocational Studies, and Project Yi Jin. Over 80% of the students are from secondary schools which did not use English as the medium of instruction. The diversities in academic level and English literacy lead to difficulties in teaching classes and result in the failure of over half of the students in some exams. To alleviate problems caused by student diversity and to improve academic performance, peer mentorship has been adopted, as the methodology has been found helpful to academic performance in Canada (Roger and Tremblay, 2001).

In the Academic Year 2008/09, many students with weaker academic backgrounds were found to be unable to keep up with the pace of the module. As it was impossible to offer additional small-class tutorials, peer mentorship was adopted to solve the study diversity problem. Study groups were formed with students of better academic results as mentors. The year tutor visited the study groups regularly to clarify concepts and solve difficult problems for the students. The average number of students in each study group was around 15. More students joined the study groups when they needed assistance, particularly before tests and exams.

It was obvious that most students in the peer mentorship study group became more proactive in studying, sometimes staying in school to study after class. The academic performance of 15 students who attended the study groups regularly was tracked for three academic years to evaluate the effect of peer mentorship. The results showed that their academic average and class rank had been improved drastically. Five of them received distinction (out of 11 distinctions in total for that year), and 6 received credit in their academic result when they graduated in 2010/11. Furthermore, 5 of them were offered a full time place in degrees in Electrical Engineering or Building Services (normally only 2 places were offered each year) and 8 were offered a place in part time degree courses at the Hong Kong Polytechnic University. Among these 15 regular students, most of the students were active participants with one exception. That student did not attend regularly in his third year and his academic performance dropped drastically.

The average mark of the 2008-2011 cohort performed well compared to the cohort after them which did not adopt peer mentorship. Despite the fact that the year 1 average of the 2008-2011 cohort was 1 mark lower than the cohort after them in year 1 of their study, they outperformed by about 1.5 marks in year 2 and about 3.5 marks in year 3. The improvement would be even greater if we computed the improvement of the average of the 15 students in the studying group instead of the average of all students in the cohort.

To facilitate running of peer mentorship program, it is necessary to motivate academically sound students to be mentors, and the teacher has to show support by visiting the group frequently and offer help when necessary. The management should allocate additional resources such as mandatory office hours for lecturers to visit study groups. Venues for study groups should be arranged so that students can have a better environment to study in. A mentorship coordinator is also ideally required to facilitate the administrative duties of study groups.

### Reference:

Rodger, S. & Tremblay, P.F. (2003). The effects of a peer mentoring program on academic success among first year university students. *The Canadian Journal of Higher Education*, 33(3), 1 – 18.