



The performance of ex New Zealand Diploma in Engineering (NZDE) students in Bachelor of Engineering Technology (BETMG) programme

**By Edward Chai
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Background

- A lot of New Zealand Diploma in Engineering (NZDE) students, after completed the diploma programme, have decided to join Bachelor of Engineering Technology (BETMG). They usually need 1.5 years of fulltime study to complete it, and double the time if on part-time study.
- From **Figure 1**, ex-NZDE students make up about 30% of new intake of BETMG programme, which is quite a big proportion. As the entry criteria of NZDE is lower than that of BETMG, it is of interest to find out how these ex-NZDE students were performing in BETMG to shed light on the virtue of this NZDE-BETMG pathway of study.

Intake	Total new students in BETMG	Total number of ex-NZDE students progressing to BETMG	% of ex-NZDE students in new BETMG intake
Sem 1 2014	70	22	31%
Sem 2 2014	26	8	31%
Sem 1 2015	87	19	22%
Sem 2 2015	34	11	32%
Sem 1 2016	65	19	29%
Total=	282	79	28%

Figure 1 Percentage of ex-NZDE accepted into BETMG programme for the 5 intakes

Completion of BETMG

- The 5 cohorts of ex-NZDE students, as shown in **Figure 2**, have a high rate of completion in BETMG programme. Out of the 79 students in 5 cohorts, 72 of them were able to complete BETMG successfully, 4 of them are still in progress of study, and the remaining 3 of them had bowed out. This is a high completion rate of about 91%.
- Furthermore, a high average of 85% of those who have completed BETMG were able to do so within the stipulated time, as can be seen in **Figure 3**. The ex-NZDE students who have completed NZDE will only need to do a further 10 courses or 150 credits to complete the BETMG programme. It will require a fulltime study of 1.5 years or 3 years part-time to do that.

Intake	Total number of ex-NZDE students progressing to BETMG	Number of ex-NZDE students successful in BETMG	Number of ex-NZDE students in progress of completion	Number of ex-NZDE students didn't complete	% of ex-NZDE students successfully completed BETMG
Sem 1 2014	22	18	2	2	82%
Sem 2 2014	8	8	0	0	100%
Sem 1 2015	19	19	0	0	100%
Sem 2 2015	11	10	1	0	91%
Sem 1 2016	19	17	1	1	89%
Total=	79	72	4	3	91%

Figure 2 Percentage of ex-NZDE students successfully completed BETMG

Intake	Number of ex-NZDE students successful in BETMG	Fulltime ex-NZDE students completed BETMG within 1.5 years	Part-time ex-NZDE students completed BETMG within 3 years	Percentage of ex-NZDE students completed BETMG within the stipulated time
Sem 1 2014	18	15	2	94%
Sem 2 2014	8	7	0	88%
Sem 1 2015	19	14	1	79%
Sem 2 2015	10	9	0	90%
Sem 1 2016	17	13	0	76%
Total=	72	58	3	85%

Figure 3 Percentage of ex-NZDE students completed BETMG within the stipulated time

Performance of students

- The ex-NZDE students have performed admirably in BETMG programme. For the 79 students from the 5 cohorts, only 72 of them have cumulative Grade Point Average (GPA) in both NZDE and BETMG programme, as the remainder 7 of them were from other polytechs.
- An average of 57% of the ex-NZDE students in this study have improved cumulative GPA in the BETMG programme (as in **Figure 4**), while an average of 39% of them have similar performance in the two programmes (as in **Figure 5**). Only 4% have lower cumulative GPA in the new programme.

Intake	Total number of ex-NZDE students progressing to BETMG	Number of ex-NZDE students with GPA for both NZDE and BETMG	Number of ex-NZDE students with improved cumulative GPA in BETMG	Percentage of ex-NZDE students with improved performance in BETMG
Sem 1 2014	22	21	14	67%
Sem 2 2014	8	8	5	63%
Sem 1 2015	19	19	11	58%
Sem 2 2015	11	9	3	33%
Sem 1 2016	19	15	8	53%
Total=	79	72	41	57%

Figure 4 Percentage of ex-NZDE students with improved performance in BETMG

Intake	Total number of ex-NZDE students progressing to BETMG	Number of ex-NZDE students with GPA for both NZDE and BETMG	Number of ex-NZDE students with similar cumulative GPA in both NZDE and BETMG	Percentage of ex-NZDE with similar performance in both NZDE and BETMG
Sem 1 2014	22	21	6	29%
Sem 2 2014	8	8	2	25%
Sem 1 2015	19	19	8	42%
Sem 2 2015	11	9	6	67%
Sem 1 2016	19	15	6	40%
Total=	79	72	28	39%

Figure 5 Percentage of ex-NZDE students with similar performance in both NZDE and BETMG

Discussion

- From the pattern of student intakes throughout the years, it is apparent that NZDE students are important feeder for the BETMG programme. Our previous worry was that the ex-NZDE student might not perform well in the BETMG programme. From the experience with the NZDE students and through this study, it seems that the students who have completed NZDE and have chosen to staircase their credits to BETMG has no problem to complete it within the stipulated time and with good result.
- From the high completion rate and good result, it seems that the ex-NZDE students are motivated in their study to complete the degree programme. The motivation probably comes from the better promotion prospect in their future career as a degree-holder engineer and higher salary in general.

- It also demonstrates that the NZDE students with lower prior qualification than the direct entry BETMG counterparts have no problem to cope with the third year courses in BETMG programme, after two years in NZDE.
- From this study, the NZDE-BETMG pathway is a good option for those students who have not satisfied the entry criteria for BETMG, albeit with a half year longer duration than those direct entry students.
- The NZDE students, with 14 NZDE courses cross credited to BETMG, have no problem to cope with the third year courses in BETMG. This demonstrates that the cross credits given to the NZDE students are valid and have not hindered their progress of study in BETMG.

Conclusion

- The ability of the ex-NZDE students to complete the BETMG in the stipulated time and with good result reinforces the viability of the NZDE-BETMG pathway for those students who could not achieve the entry criteria of BETMG. Their good performance also demonstrates that the quality of the BETMG graduates will not be compromised by the students with initial lower entry criteria taking the NZDE-BETMG pathway. It also validates the 14 cross credits given to them for their two year study in NZDE.

Thank you for listening

Any questions?