

# NESB STUDENTS – COPing WITH BICT: ONE YEAR ON

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## ABSTRACT

The purpose of this paper is to explore the success of a special foundation programme that has been completed by some international students as their first semester's study towards the Bachelor of Information and Communication Technologies degree at Christchurch Polytechnic Institute of Technology.

The findings are useful for evaluating the ongoing use of the special foundation programme and will be of use to other members of the NACCQ sector who are using or considering using a similar foundation programme.

## 1. INTRODUCTION

In 2002 Christchurch Polytechnic Institute of Technology (CPIT) introduced a special foundation programme or Certificate of Proficiency (COP) for students from a Non English Speaking Background (NESB) who fell just short of the English entry requirements for the Bachelor of Information and Communication Technologies (BICT) that would still enable them to complete the BICT in three years. This foundation programme was described in Nesbit and Isitt (2004).

The purpose of this paper is to explore the success rates of students who have undertaken this foundation programme as they move into second year papers of the degree, with a view to answering the following questions: "What are the success rates of NESB student who have undertaken the special BICT foundation programme (BICT COP students) compared with NESB students who met the English entry criteria and domestic students as they move through the first two years of BICT?"

## 2. REVIEW OF PREVIOUS WORK

As described by Nesbit and Isitt (2004), students who narrowly miss the English language entry requirements for the BICT degree are enrolled in a one semester (half year) foundation programme that includes 30 credits of BICT courses and 30 credits of English for Speakers of Other Languages (ESOL) courses, and on successful completion of this are given full admission to the BICT degree and are able to complete the degree in a further two and a half years. The structure of the courses completed by these students in their first full year is shown in Table 1, with the courses that are completed by students who originally met all of the requirements for the degree are shown in Table 2. Nesbit and Isitt (2004) analysed the second semester results of the first two groups of students who completed the half year foundation programme (semester two of 2002 and semester one of 2003). These students had a 76.7% pass rate, compared with an overall BICT pass rate that ranged from 70.57% to 77.66% from 2001 to 2003. This study concluded that the introduction of the BICT COP programme had been reasonably successful, but that the results from further groups would need to be analysed in the future to draw a more statistically significant conclusion.

## 2. METHODOLOGY

The success of a programme such as the BICT COP Programme was determined to have three components:

- The pass rates of students in the courses



**Table 1 – Course Completed in First Full Year by BICT COP Students**

First Semester	BCIT101 – IT: Concepts and Tools	15 credits
	BCPR109 – Programming Precepts	15 credits
	ESOL5XX – English Language	30 credits
Second Semester	BCIT151 – Multimedia and Internet Technologies	15 credits
	BCIT241 – Web Site Development	8 credits
	BCCS111 – Computer Architecture	7 credits
	BCBU103 – Professional Communication	15 credits
	BCIS101 – Information Systems 1	15 credits

**Table 2 – Course Completed in First Full Year by BICT Students Meeting Entry Criteria**

First Semester	BCIT101 – IT: Concepts and Tools	15 credits
	BCPR109 – Programming Precepts	15 credits
	BCBU103 – Professional Communication	15 credits
	BCIS101 – Information Systems 1	15 credits
Second Semester	BCIT151 – Multimedia and Internet Technologies	15 credits
	BCIT241 – Web Site Development	8 credits
	BCCS111 – Computer Architecture	7 credits
	BCPR101 – Computer Programming 1	15 credits
	BBPM101 – Principles of Management	15 credits

that were studied in the programme.

- The proportion of students who completed the BICT COP Programme who continued studying towards the BICT degree.

- The pass rates of those students in the courses that they completed in their subsequent studies towards the BICT degree.

The focus of this paper is on the pass rates of students in the BICT courses that were studied as part of this programme, and their pass rates as they completed further courses towards the degree,

The success rate of students in the BICT courses that they enrolled in as part of the BICT COP Programme (BCIT101 and BCPR109) we calculated, and compared with the success rates of students who had met all of the entry requirements for the BICT.

For the students who continued studying towards BICT students, their success rates were calculated and compared with the success rates of other students in the same courses. These courses were broken down into two groups: the courses that were completed in their second semester of study (see Table 1) and the courses that were completed in their third or subsequent semesters.

### 3. RESULTS

The success rates of BICT COP students and all students in BCIT101 are shown in Table 3, with the success rates of BICT COP students and all students in BCPR109 being shown in Table 4.

The success rates for BICT COPs students in courses in their second semester of study are shown in Table 5, along with the success rates for other NESB students, domestic students and students as a whole studying these courses in the same semesters.

The success rates for BICT COPS students in courses in their third or later semesters of study are shown in Table 6, along with the success rates for all students studying these courses in the same semesters in 2003 and 2004.

### 4. ANALYSIS AND DISCUSSION

The results of the students in the two BICT courses that are studied as part of the BICT COP Programme (BCIT101 and BCPR109) as displayed in Tables 3 and 4, show that their pass rates are higher than the pass rate for these courses as a whole. Over the five semesters review, the pass rate for these students in BCIT101 was 78%

**Table 3 – Success Rates for BICT COP Students and All Students in BCIT101**

		<b>BICT COP Students Attempting</b>	<b>BICT COP Students Passing</b>	<b>Pass Rate</b>	<b>All Students Attempting</b>	<b>All Students Passing</b>	<b>Overall Pass Rate</b>
2002	Two	1	1	100%	11	8	73%
2003	One	5	5	100%	41	32	78%
2003	Two	6	5	83%	25	13	52%
2004	One	15	11	73%	43	30	70%
2004	Two	10	7	70%	26	15	58%
	Total	37	29	78%	146	98	67%

**Table 4 – Success Rates for BICT COP Students and All Students in BCPR109**

		<b>BICT COP Students Attempting</b>	<b>BICT COP Students Passing</b>	<b>Pass Rate</b>	<b>All Students Attempting</b>	<b>All Students Passing</b>	<b>Overall Pass Rate</b>
2002	Two	1	1	100%	9	4	44%
2003	One	5	5	100%	55	37	67%
2003	Two	6	6	100%	34	19	56%
2004	One	14	12	86%	53	36	68%
2004	Two	8	5	63%	26	17	65%
	Total	34	29	85%	177	113	64%

**Table 5 – Success Rates for BICT COP Students in Second Semester Courses and Equivalent Data for All Students**

	<b>BICT COP Students Attempting</b>	<b>BICT COP Students Passing</b>	<b>Pass Rate BICT COP Students</b>	<b>Pass Rate Other NESB</b>	<b>Pass Rate Domestic Students</b>	<b>Overall Pass Rate</b>
BCBU103	25	23	92%	47%	78%	73%
BCIS101	28	12	43%	40%	54%	49%
BCIT151	26	13	50%	57%	70%	64%
BCCS111	21	11	52%	77%	90%	79%
BCIT241	24	15	63%	58%	74%	67%
Total	124	74	60%	53%	71%	65%

compared with 67% for the course as a whole. For BCPR109, the pass rate for these students was 85% compared with 64% for the course as a whole. When the BICT COP Programme was designed, it was anticipated that the pass rates for the students in these two courses might be lower than for the courses as a whole. That the pass rates for these students was significantly higher than for the courses as whole, could be attributed to the students having higher motivation to succeed as a result of being compelled to enrol in a foundation programme.

When looking at the success rates in the courses that the BICT COP students complete in their second semester of study in Table 5, it

can be seen that overall their pass rate is higher than the NESB students who originally met the English language entry criteria (60% compared with 53%) but is lower than for domestic students (60% compared with 71%). This is a sign that the BICT COP Programme is meeting its purpose as the BICT COP Students have a higher success rate than the other NESB students.

When it comes to the pass rates of the BICT COP Students in their third and later semesters of study, Table 6 shows that their pass rates over the courses typically studied are higher than for those courses overall in 2003 and 2004 (77% compared with 71%). This is another sign that the BICT COP Programme is meeting its purpose.

**Table 6 – Success Rates for BICT COP Students in Third or Later Courses and Equivalent Data for All Students in 2003 and 2004**

	<b>BICT COP Students Attempting</b>	<b>BICT COP Students Passing</b>	<b>Pass Rate</b>	<b>All Students Attempting</b>	<b>All Students Passing</b>	<b>Overall Pass Rate</b>
<b>BBPM101</b>	8	5	63%	92	60	65%
<b>BCCS203</b>	6	5	83%	72	44	61%
<b>BCCS211</b>	7	3	43%	78	58	74%
<b>BCCS222</b>	3	2	67%	30	17	57%
<b>BCIS201</b>	4	3	75%	82	44	54%
<b>BCIS202</b>	5	4	80%	114	94	82%
<b>BCPR101</b>	9	8	89%	88	70	80%
<b>BCPR203</b>	4	3	75%	117	81	69%
<b>BCPR212</b>	1	1	100%	57	50	88%
<b>BCPR213</b>	4	4	100%	84	61	73%
<b>BCPR222</b>	1	1	100%	38	30	79%
<b>BCPR223</b>	4	4	100%	71	48	68%
<b>Total</b>	56	43	77%	923	657	71%

At the time of writing the very first of the BICT COP students had completed all of the course work for the BICT degree, having passed all courses at the first attempt, and was in the process of completing the cooperative education project for the degree.

Given that these students are experiencing higher success rates than NESB Students who have met the English language entry requirements in their second semester of study, and are experiencing higher pass rates than all students overall in courses that are studied in their third and subsequent semesters, a matter that could be investigated is whether the minimum English language entry criteria for full admission to the degree could be increased, thereby requiring students who currently only just qualify for entry to do the BICT COP Programme. Such a decision would need to be balanced against this being a deterrent for students applying for admission to the degree.

## 5. CONCLUSIONS

Given that the success rates of the BICT COP students in the BICT courses that they study as part of the BICT COP Programme was higher than those of the students who had originally met the entry criteria for BICT, and that the

success rates of the BICT COP students are higher in subsequent semesters than other NESB students, this suggests that the use of the BICT COP programme has been successful. This is further highlighted by the pass rates in courses in third and subsequent semesters being on average higher than all students. Time will tell as to whether these higher success rates will continue as more of these students move into the third year of the degree.

Some consideration could be given to increasing the English language entry criteria for the degree, and requiring more students to compete the BICT COP Programme first, however this could result in fewer students applying for admission to the degree.

The experiences to date with the BICT COP Programme are such that it should be continued in its current format, and could in fact be a basis on which other similar foundation programmes could be built.

## REFERENCES

- Nesbit, T. and Isitt, S. (2004) NESB Students – COPing with BICT. Proceeds of the 17th Annual National Advisory Committee on Computing Qualifications Conference, Christchurch, July 2004