Where are they now? Making the Transition - Three Years On.

Chris McCarthy
School of Computing
Christchurch Polytechnic
Institute of Technology
mccarthycm@cpit.ac.nz

Three years ago, the author presented a paper on a pilot project for senior high school students (McCarthy 2002) that provided a programme for transition to tertiary study in a vocational institution in preparation for a career in information and communications technology.
As a result of this project, CPIT believed it had "captured" a potential market of students better prepared to handle the demands of tertiary study. Those students appeared better informed as to their options and more able to make informed choices and it was thought they might prove to be better equipped to survive in tertiary study.
The initial project has since initiated a great deal of interest within other Technical Institutes both here in New Zealand and, at least one overseas institution, and has also spawned several successors, including a full-scale ICT-orientated senior high school – unique in New Zealand.
This paper re-examines the pilot scheme, and its successors, and follows the relevant tertiary experiences of the students involved in the past three years.

Keywords
Transition, education, tertiary, study

1. INTRODUCTION

Three years ago, the author presented a paper on a pilot project for senior high school students (McCarthy 2002) that provided a STAR-funded programme for transition to tertiary study in a vocational institution in preparation for a career in information and communications technology.

This paper was prompted both by the success of the activity itself and the then-gazetted National Administration Guideline (NAG1, November, 2001) that required that each School Board of Trustees, through the principal and staff … (Section vi) "provide appropriate career education and guidance for all students in year 7 and above, with a particular emphasis on specific career guidance for those students who have been identified by the school as being at risk of leaving school unprepared for the transition to the workplace or further education/training."

The initial project has since initiated a great deal of interest within other Technical Institutes both here in New Zealand and, at least one overseas institution, the Cork Institute of Technology, Cork, County Cork, Ireland. It has also given rise to several successors, including the Christchurch College of Computing. This full-scale ICT-orientated senior Year 13 high school is unique in New Zealand. Students enrolled in this senior college are also enrolled at CPIT as STAR students in 11 of the NACCQ modules from the Diploma in Information and Communications Technology. Should they pass the appropriate nine of the 11 modules, they are awarded the Certificate in Information Technology (Level 5).

As a result of this project, CPIT believed it had "captured" a potential market of students better prepared to handle the demands of tertiary study. CPIT even coined a new word for this type of activity – "EFTS harvesting". Those students appeared better informed as to their options and more able to make informed choices and it was thought they might prove to be better equipped to survive in tertiary study.

2. METHODOLOGY

The author undertook both a detailed examination of the CPIT student record database and conducted a review of New Zealand-based literature relating to the issue of transition education and School-Tertiary Alignment Resource (STAR)-funded courses.

The examination of the CPIT student record database was carried out by comparing each year's

Table 1 Number of enrolments from Burnside High School & the Christchurch College of Computing, by programme of choice and year of enrolment.

Programme of choice	Year started			Total
	2002	2003	2004	
Bachelor in Business Innovation and Enterprise		1		1
Bachelor of Art and Design			1	1
Bachelor of Design			1	1
Bachelor of Information & Communication Technologies		14	10	24
Catering	3			3
Certificate in Electicity Supply		1		1
Certificate in Electrical Engineering			1	1
Certificate in Electrotechnology	1			1
Certificate in Furniture Making		1		1
Certificate in Information Technology		2		2
Certificate in Japanese		1		1
Certificate in Meat Industry Cadetship			1	1
Certificate in Painting and Decorating			1	1
Certificate in Ski and Snowboard Instructing		1		1
Certificate of Fashion Technology and Design		1		1
Computer Technicians Certificate	1			1
Computing for Free	1	2	1	4
COOL Online Studies		3		3
Diploma in Computer Networking	1	4	3	8
Diploma in Hospitality Management		1		1
Diploma in Information & Communications Technology (Level 6)	4	4	4	12
Diploma in Information Technology (Level 5)			1	1
Electrical (Level 3)	1			1
Foundation Programme (???)		1		1
Graduate Diploma in Design			1	1
National Certificate in Furniture Making	1			1
New Zealand Diploma of Business		1		1
Vet Nursing		1		1
			Overall Total	**77**

school class list against the CPIT database. Names were checked against enrolments for every year since the student had left school, and then checked against recorded results to ensure the student was progressing academically. The results of the search were then recorded in a table (Table 1) and then compared against the original class lists (Figs 3 and 4).

The local literature seemed to be somewhat scarce and all written since the author began the initial project in 2001. However, the two significant works found did have considerable bearing upon both the CPIT process of developing the project in the first place and the success of it over the past three years.

McLaughlin (2002) said that raising expectations and improving academic preparation for students before they enter tertiary education are key policies in closing the opportunity gap (improving access to tertiary education). In her Fulbright Address at the University of Victoria in Wellington, she argued that strategies for closing the opportunity gap should include creating early intervention School/Tertiary partnerships, and providing more information earlier.

She further argued that such strategies must also include an emphasis on academic preparation, tutoring, mentoring, and information on preparation, costs, and student support and, in some cases, scholarships. McLaughlin believed that we should provide academic and financial information earlier so that students and families had the full picture of what they needed to do at an earlier stage. This information was especially necessary for students from families with little or no previous exposure to tertiary education.

Vaughan and Kenneally (2003) found that STAR is a highly valued resource and an integral part of the senior secondary school programme. STAR coordinators were very positive about the opportunities for meeting student needs and students were

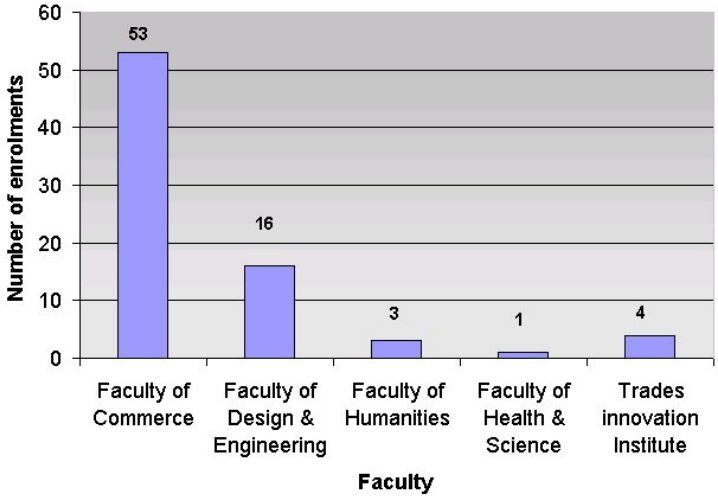

Fig 1. The distribution of the number of enrolments over the different Faculties at CPIT.

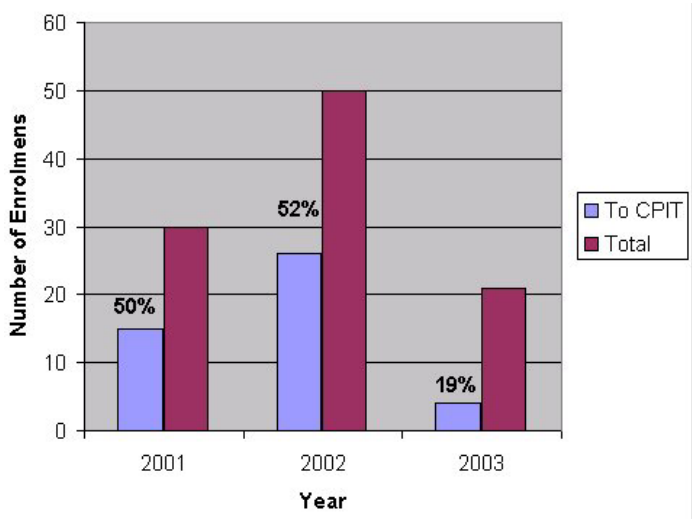

Fig 2. The number of enrolments at CPIT from Burnside High School Year 13 students, compared to the total

generally excited about their STAR courses. Tertiary institution representatives regarded STAR as an important recruitment tool.

They further found that most STAR co-ordinators reported understanding STAR's purpose as being related to the provision of links to tertiary courses and tasters, and provision of courses that the school would not otherwise provide.

In Vaughan and Kenneally's study of 8 STAR schools in New Zealand, they found that tertiary providers of STAR courses reported perceiving STAR's purpose as being one of bridging secondary and tertiary education through the provision of non-conventional subjects. They therefore tended to focus on the transition aspect of STAR. Provider descriptions of the most successful features of STAR for them were characterised by references to their own needs of recruitment and how these were bound up with the needs of students to study/work in an area of interest.

Vaughan and Kenneally's key recommendations included making taster courses more available to students and understanding that they serve an important purpose which "was not negated by students not necessarily going on to careers or further study directly related to what they tasted."

3. FINDINGS

Between the 2001 and the 2003 school years, some 159 Year 13 high school students had been through either the Burnside 13COM elective or the Christchurch College of Computing.

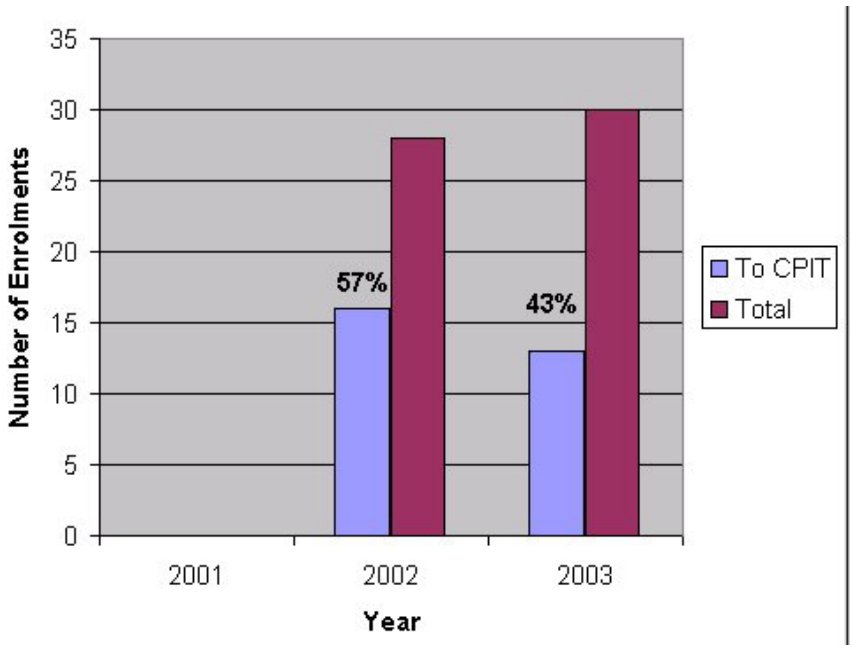

Fig 3. The number of enrolments at CPIT from the Christchurch College of Computing students, compared to the total number attending the college

Of those 159 students, 77 (48%) of them enrolled in courses or programmes of study at CPIT. There is no pressure of any kind on the students to come to CPIT, just the increased opportunity to do so. Traditionally high schools actively encourage students to attend university as their preferred form of tertiary education (McCarthy 2002). It is good to now see a broadening of this objective.

It would be nice to say that all of them enrolled in the programmes of study within the School of Computing, but they didn't. However, this is consistent with the findings of Vaughan and Kenneally (2003) in that it "was not negated by students not necessarily going on to careers or further study directly related to what they tasted."

Indeed, of the 77 students enrolling at CPIT, only 48 enrolled in the Bachelor of Information and Communication Technologies (24), the Diploma of Information and Communications Technology Level 6 (12), the Diploma of Information Technology (1), and the Certificate in Information Technology (2) from the School of Computing, in the Faculty of Commerce.

There were also enrolments in the Diploma of Computer Networking (8) and the Computer Technicians Certificate (1) from the School of Engineering, in the Faculty of Design and Engineering, at CPIT.

The other 30 students enrolled in a wide range of courses or programmes of study, from catering to furniture making, and from Japanese language to veterinarian nursing.

Definitely, the School of Computing "harvested' the most, with 46 students enrolling in courses such as Computing for Free through to the full programmes of study.

By school, Burnside High School has contributed the most students so far – not just because the scheme has been operating one year longer there, but partly because of the sheer size of the school roll. In the second year of the scheme, 50 Year 13 students (about 12% of the total Year 13 roll) were enrolled in 13COM, of which 26 enrolled in courses or programmes of study at CPIT.

It will be noted that 2003 was not as successful as year, in that only four of the 21 students from Burnside High's 13COM elective enrolled in programmes of study at CPIT in 2004. However, a further three students from the 13COM elective enrolled at the Christchurch College of Computing as Year 14 students – thereby still, in effect, being enrolled at CPIT, bringing the number up more realistically to 7 (or 30%) out of 21.

The Christchurch College of Computing, although having one less year than Burnside in the scheme,

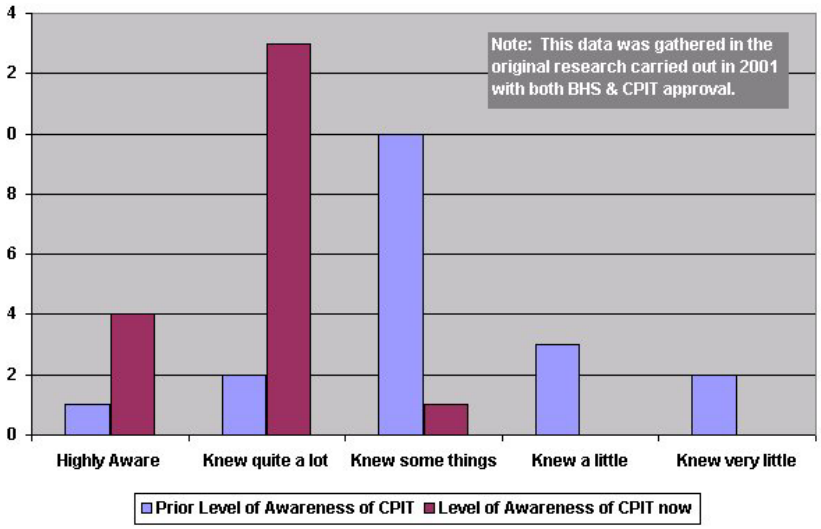

Fig 4. Question 10 - Prior level of awareness of CPIT compared with Question 11 - Level of awareness of CPIT now, after having completed these courses at Burnside in 2001 (McCarthy 2002)

has contributed many more students to the Bachelor of Information and Communication Technologies (BICT).

All 77 students, with three exceptions only, have either successfully completed their course or programme of study, or are well on the way to a successful completion.

The three exceptions (or about 4% of the total) are students from the Christchurch College of Computing. Two students have dropped out of the Diploma in Information and Communications Technology Level 6 programme and one student dropped out of the BICT programme.

Finally, the other 74 students have all done well. As already mentioned, many of them have successfully completed the course or programme of study they had enrolled in. Several others are well on the way to success.

Of those enrolled in the BICT degree programme, most of them were accepted on the basis of having previously successfully completing a Certificate in Information Technology – due to the students' high level of interest in computing, which was not available as a Bursary curriculum topic. Only a few would have gained a minimum of three C's in Bursary.

These students are being reported by lecturing staff as being well-prepared for their degree courses and over the last two years have, in the main, gained a minimum of a B grade average (an average of all relevant students' results).

4. CONCLUSIONS

In re-examining the pilot scheme and subsequent projects in light of the work of McLaughlin (2002) and Vaughan and Kenneally (2003), the author's own experiences are consistent with their research.

McLaughlin's strategies for closing the opportunity gap (improving access to tertiary education) including creating early intervention School/Tertiary partnerships, and providing more information earlier are consistent with the author's experiences at Burnside High School. The regular visits to the schools and subsequent research in 2001 found that students who were previously not very aware of CPIT were more aware of the institution by the end of the year to a considerable degree (McCarthy 2002).

The students believed they were now better informed and had had access to a wide range of information about CPIT and the courses and programmes of study available. This is further borne out by the fact that 50% of the students that first

year enrolled in courses at CPIT and either successfully completed them or are almost finished them.

Each year, students from the Burnside High School 13COM elective are continuing to enrol in CPIT courses or programmes of study, and are now joined by the students from the Christchurch College of Computing.

Although neither Burnside High School, the Christchurch College of Computing, nor CPIT were directly involved in Vaughan and Kenneally's case studies of 8 high schools and subsequent report to the Ministry of Education, their findings were supported by the author's experiences. Students certainly enjoyed the courses (McCarthy 2002), staff at Burnside High School and the Christchurch College of Computing have often stated their opinion of the value of the experience, and CPIT have benefited from the increased enrolments.

Vaughan and Kenneally's finding that students did not necessarily go on to careers or further study directly related to the STAR course or programme they had done is also supported by the wide range of courses and programmes students have chosen to enrol in over the last three years at CPIT.

CPIT most definitely believe they are in an "EFTS-harvesting" situation with 77 of the 159 students (or 48%) coming to CPIT. The students are coming, and, so far, are doing well. They seem to be better informed and better prepared – making a successful transition from high school to tertiary education.

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