

## Education Forum

### Starting from Scratch

CNZ and Compucon jointly held an Education Forum for the first time in May 2005 and the second time in November 2005. The information below came mainly from the November forum that the floor considered to be useful and stimulative. Among the participants were Rodney College, Mangawhai Beach School, Orewa College, Westlake Boys College, Waitakere College, Waiheke College, Ministry of Education and various IT consultants.

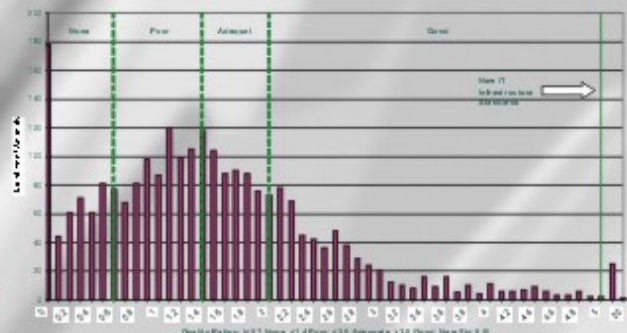
### University Entrance

The University of Auckland offers a degree on 4 IT related disciplines. These disciplines are Information Technology, System Engineering, Computer Science and Software Engineering. Do they sound similar? How would secondary schools advise students in career development and selection of tertiary training path? It is not easy. We are aware that both are technical subjects but they are currently not part of the criteria for admission to universities. A committee formed of University Vice Chancellors decided the criteria in the form of an approved subjects list and the list does not include technology subjects. It is most likely because technology subjects are not academic enough. Agree or not? IPENZ (Institution of Professional Engineers New Zealand) has been lobbying universities for a revision of their stance. On the other hand, many students do not go to university and they go straight into society after Form 6 or 7. From this perspective, we believe that secondary schools should include IT or Engineering subjects at a cursory level and to provide guidance to students on careers or career development.

### IT and Engineering

Both are not on the ANZIC (Australia New Zealand Industry Classification) list meaning that they are not industries unlike Tourism, Education, Health, Public Utilities and Defence etc. They are the major components for the establishment and operation of industries. The effort of IT and Engineering does contribute to the wellbeing of a country and their effort goes into the computation of GDP (Gross Domestic Product) of a country. Currently 2% of New Zealand's GDP is accounted for by IT. This does not compare well to 4% for Australia and has been used by economists to explain the poor growth of productivity of our country. It seems that the country should do more on IT if we want to get back into the first half of the OECD ladder (Organisation for Economic Cooperation and Development is a group of first world countries). At this stage, IT is far from as developed or structured as Engineering. We have Acts of Parliament that define the establishment of the Engineering discipline but there is none for IT. The government certifies electricians but it is commercial operations such as Microsoft and Cisco which certify software and networking personnel. We have IPENZ to guide and discipline engineers. The closest we get in IT is ITANZ which is a group of major companies or ITUANZ which is mainly about telecommunication. IT has a long way to go. We must approach IT education with established purposes, principles and structured planning.

Overall Quality Distribution



### Collective Agenda

The senior ICT consultant at MOE, Douglas Harre, presented an overview of the state of education in New Zealand (see Figure on page 1) and the state of ICT infrastructure of New Zealand schools (see Figure on this page). Compared to other OECD countries, New Zealand is relatively well placed in terms of "mean student reading literacy" but poorly placed in terms of equity "Equity" refers to the variance of the quality of students. Poor equity means that there is a large variance between bright students and not-so-bright students. Our collective effort should be directed towards improving the quality of our students to the top (above Finland) and reducing the gap between bright and not-so-bright students. It is understood that MOE has rated the quality of network cabling in schools and found that most schools have poor or adequate cabling and only a few have good cabling in place. MOE has since started assisting schools install high quality cabling. A rating above 2 is considered good. However, the target is to achieve 5 for as many schools as possible. Obviously, funding is needed. For small schools of less than 150 students, MOE estimated the cost to be about \$800 per student. For larger schools above 400 students, the cost would be about \$500 per student and less for more students. The information here does not necessarily reflect the true position of MOE. Feel free to email [editor@cnz.co.nz](mailto:editor@cnz.co.nz) who will forward your concerns and comments to MOE as appropriate.