

# Research Outlook

## Message from the Chairman

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Our research activity reported in this edition of *Research Outlook* is especially diverse. Our Director of Research Siham El-Kafari has recently been to Istanbul to attend the annual World Association for Sustainable Development (WASD) conference on ICL's behalf. And we have hosted the distinguished scientist, Dr Pierson Rathinaraj from AUT, to give a presentation to ICL staff and students on "Nanotechnology in marketing and cost reduction for medicinal based business". Further, we are delighted to announce the publication of our second ICL Journal, which appears on our website at <http://www.icl.ac.nz/wp-content/uploads/2015/06/ICL-Journal-2-Issue-1.pdf>.

Reports on the WASD conference and Siham's presentation and Dr Rathinaraj's talk are in the newsletter. The Journal is no less eclectic than the first edition, and includes papers on a range of educational and economic issues with five of the papers impacting directly on what we do at ICL: Maori and Pasifika learners, the importance of innovation, attitudes of Chinese students to education, academic integrity and dishonesty, and curriculum renewal. The whole point of academic research is to inform teaching, and this journal is a very fine example of that.

Finally, we are approaching our submission to NZQA for approval of our Postgraduate Diploma in Business. This will be a level 8 programme, kindly released to us by Southern Cross University. We expect to host an NZQA panel in the New Year, and if all goes well, launch the programme mid to late 2016.

Ewen Mackenzie-Bowie, Chairman

### In this issue

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**ICL Research Seminars**

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# ICL Research Seminar Series

5th April 2015

Ewen Mackenzie-Bowie

**Title:** Defining Nonsense Poetry

20th May 2015

Tahera Afrin

**Title:** Cultural components of Early Childhood Teacher Training Programmes

ICL Guest Lecturer

1.00-2.30pm

17<sup>th</sup> June 2015

Dr Pierson Rathinaraj

**Title:** Nanotechnology in marketing and cost reduction for medicinal based business

Venue: ICL Education Centre, 10-14 Lorne St.



## Abstract

### In-Vitro impedance activity of breast cancer cells from drug conjugated gold nanoparticles

Impedance spectroscopy measurement has been used to monitor drug internalization on cancer cells. Trastuzumab, a typical anti-cancer drug, was immobilized on the surface of Gold nanoparticles(GNP) to enrich their specific interactions with breast cancer cells (BT-474) to study the electrical properties of BT-474 cells. The micro electrodes measure the electrical property by assessing the drug internalization. To clarify the mechanism of cell death, an investigation of the impedance of human skin cells and breast cancer cells were studied using the Maxwell-Wagner mixture theory that the growth signal of breast cancer cells is inhibited completely by the precise binding of drug to the Her-2 receptor of BT-474 membrane, ensuing in cell death.

DR PIERSON RATHINARAJ

Institute of Biotechnology, AUT

# ICL Research Activities – Conference Presentations

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By ICL Staff

## **Cultural components of ECE teacher training and professionalism**

**Conference: Practice-based Education Summit, Charles Sturt University, Sydney; 14-15 April 2015**

**Presenter: Tahera Afrin, ICL Business School and Dr Chris Jenkin, AUT**

The presentation explains the complexity (Afrin, 2009) and contributions of diversity in the ECE teacher education classroom. Under a socio-cultural theoretical framework, the qualitative research finds out how components from culture are brought into early childhood teacher education programmes. Furthermore, it explains how these components contribute to the reflective thoughts for the early childhood lecturers. With this purpose, eight lecturers from two Tertiary Education Organisations (TEOs) are interviewed. Two cohorts of student teachers from the same TEOs participate in focus groups. A teaching as inquiry model (Te Kete Ipurangi, 2014; Temperley, 2011) is used to analyse data so that the findings help the lecturers involved in this area to understand and reflect on their own practice and define culturally-appropriate professional practice.

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## **Tuning with the Hermit Crab: Leading to *Tātaiako* for Maori and Pasifika learners**

**Conference: International Higher Education Curriculum Design and Academic Leadership Symposia 15-16 April, NZCDI, Hamilton**

**Presenter: Tahera Afrin and Makelesi Latu, Early Childhood Education (ECE), ICL Business School**

This study is an added contribution to the literature that explores the success of Maori and Pasifika from the view of organisational changes. Under a qualitative research paradigm, one Private Training Establishment (PTE) in Auckland is chosen as a case study to summarize the undertaken innovative strategies to support Māori and Pasifika learners to succeed. A summary and analysis also captures how the organisation gradually engages with the concept of *Tātaiako* (Ministry of Education, 2011). Twenty Early Childhood Education (ECE) learners and eight staff are chosen by convenient sampling. Focussed Group Discussion (FGD) and questionnaire are the research tools. The graduate students, the current students, and the academic and administrative staff participated and expressed ideas on nine key concepts around success. A metaphoric model of the hermit crab (Thompson, 2012) is used to analyze the data. The findings show that a culturally-competent organisation should create an environment where the learners first feel they like to be in, and then should promote culturally-competent teaching. Individuality and flexibility around curriculum design and delivery are also important. The findings of the study are useful for academic and administration staff of the TEOs in New Zealand who implement the third priority of the Tertiary Education Strategy.

## Applying Gamification in an Educational Website: An Open Innovation Case

World Association for Sustainable Development (WASD) 2015 International Conference, Istanbul, Turkey, June 2015  
Theme: Green Behavior  
Presenter: Dr Siham El-Kafafi



### **Abstract:**

**Purpose:** The aim of this research paper is to propose the use of open innovation to the government-owned organization, Education New Zealand, to boost engagement among users, promote communication and interaction among educational institutions and partners.

**Design/methodology/approach:** The research utilizes a semi-radical innovation approach and a Play-To-Win strategy as a means to gain competitive advantage for the organization in a competitive industry.

**Findings:** The research provides a new layer of software (with principles of gamification) to be utilized by Education New Zealand through their current website. This software will resolve existing problems that are hindering international students from accessing information on the website with ease.

**Originality/value:** Delivering innovative software to assist an educational organization in providing Fast Experimentation and Fast Learning Process (collecting and analyzing data) to get increasingly a more successful product, service, and business model.

**Key words:** Open innovation, semi-radical innovation approach, play-to-win strategy, Education New Zealand and gamification.

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## Innovation: The New Face of Quality

World Quality Day, Sponsored by the New Zealand Organisation for Quality, June 2015

Presenter: Dr Siham El-Kafafi

Venue: Novotel Hotel, Greenlane, Auckland

**Purpose:** Facilitating a workshop to various quality practitioners from various backgrounds from all around New Zealand in this annual event

**Message:** The role of quality management in the process of innovation development.

The workshop was a dense, fast-moving, action-oriented programme with many hands-on activities, with a focus on immediate benefit and practical application.

The workshop included the following:

- Identifying the link between innovation and quality management
- Practicing the rules of creativity and innovation
- Creative quality and value innovation
- Developing a creative and value innovative idea through the 5-S Model

## Other Research Activities

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### Public Lecture at AUT

**What are you assessing? Using genealogical analysis as a critical approach to exposing power relationships in early childhood assessments.**

**Presenter: Dr Sonya Gaches, University of Arizona**

**Attendee: Tahera Afrin**

The presentation discusses the erudite knowledge and subjugated knowledge of early childhood teachers. The presenter shows how often subjugated knowledge gets ignored and at the end creates a crisis in the relevant teachers' minds. It recommends that we use genealogical analysis to find out where erudite knowledge comes from and whether or not it matches our own expectations.

### Event: Fakakoloa 'a e Tonga'l Aptearoa, June 2015

**Presenter: Makelesi Latu**

**Attendee: Tahera Afrin**

This event is a presentation from the Ministry of Education to emphasize the practice of Tongan culture in New Zealand. Makelesi Latu, along with a number of Tongan educators, presented rhymes in their own language. The event was recorded by MoE staff to create an audio-visual resource for Pasifika early childhood children

### NZDipBus Assessment and Moderation Workshop, 30 June 2015

**Attendees: Corinna Chin & Jamali Sayed**

Venue: Papillion Function Room, Butterfly Creek, Auckland Airport

Workshop Objectives:

- Understanding NZDipBus moderation requirements.
- Designing assessment material that meets prescription requirements.
- Marking learner work appropriately.

## Upcoming Academic Conferences

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### Conferences in New Zealand

#### **TERNZ 2015 Conference**

25-27 November, Auckland University of Technology (AUT)

Abstract submission date: 7 September 2015

Website: <http://herdsa.org.nz/ternz/2015/>

## Conferences Worldwide 2015

### 8th Annual International Education, Research and Innovation (ICERI) 2015 Conference

16 – 18 November 2015

Seville, Spain

Abstract submission date: 17 July 2015

Website: <http://iated.org/iceri/maillingJUN.html>

### Economy & Business 2015, 14th International Conference

1st to 5th September 2015

Elenite Holiday Village, Burgas, Bulgaria

Website: <http://www.sciencebg.net/en/conferences/economy-and-business/>

### 2015 Summer Global Conference on Education Conference

7th to 9th August 2015

Los Angeles, California, United States of America

Website: <http://www.uofrivside.com/conferences/global-education-conference/2015-summer-global-conference-on-education/>

### 2nd MENA Higher Education Leadership Forum Conference

10 – 11 November 2015

Abu Dabi, United Arab Emirates

Website: <http://cli-cks.com/helf-2015>

### 2015 International Business Conference New York City

2-6 August 2015

New York, United States of America

Website: <http://www.cluteinstitute.com/business-conferences/2015-international-business-conference-new-york-city/>

### 6th International Education, Research & Development 2015 Conference

4 – 8 September 2015

Elenite Holiday Village, Burgas, Bulgaria

Website: <http://www.sciencebg.net/en/conferences/education-research-and-development/>

Dr Siham El-Kafafi, Research Director, ICL Business School