Enhancing International Student Learning

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ABSTRACT

In this paper, the authors consider issues that affect international students in New Zealand tertiary institutes. Education is no longer confined to the boundaries of a country. Educational institutes have to cater to the needs of multi-cultural, multi-ethnic and multi-national communities. International student numbers have drastically reduced over the past few years. This has led to government level initiatives at the strategic level that consider International students in general. However, this paper identifies issues and makes suggestions for enhancing the international student learning environment at a computing and IT school in New Zealand. A review of international student numbers at the School of Computing and IT over the past three years has revealed a downward trend. Initiatives for improving the student numbers at the school have been considered in this study. The authors propose four initiatives based on the available literature and personal experiences with international students. These initiatives are discussed under the headings: new focus for teachers, global education and the local student, multicultural awareness and improved communication. The application of these could also find use by other similar schools of learning.

Keywords

Global, ethical, multicultural awareness, communication, technology solutions.

1. INTRODUCTION

A review of the international student numbers over the past few years at the School of computing and IT (SCIT) at Unitec, New Zealand revealed a downward trend. This reduction in numbers over the recent past is quiet disconcerting. The Bachelor of Computing Systems (BCS), one of the mainstream programmes of the school was studied in order to clearly identify the trends. The changes in the international student EFTS (equivalent full time students) for the BCS programme were considered from the year 2002 onwards. The figures for the year 2005 (semester 1) were compared with the figures for the semester 1 of the previous year (2004). The student numbers for the respective years and the corresponding increase or decrease is summarised in Table 1 below.

Starting from the year 2002, the above statistics revealed that the initial reduction in the growth of International student EFTS has given way to a decrease in the International student EFTS for Semester 1, 2005. Initiatives for improving the student numbers at SCIT became the obvious motivation for this study. In this paper the authors research the question, "What are the issues around declining international student numbers and what steps need to be taken by SCIT, Unitec in addressing these?"

In order to appreciate the issues giving rise to the above problem and the steps that need to be taken to address the issues, the study begins with the consideration of the current education environment. Today's education is no longer confined to the boundaries of a country. Education is globalized. Educational institutes have to cater to the needs of multi-culture, multi-ethnic multi-national communities. This prompts the authors to look at computing education in tertiary institutes from an international perspective. International education of students is among the largest foreign exchange earner in New Zealand (Sinoski, 2003) and provides 1% of the nation's GDP. Earnings of around the $2 billion make international education the third largest export earner (Dye, 2005) for New Zealand (NZ). These aspects underline the importance of international education.

Students consider many factors such as cost, quality of education, lifestyle, safety etc while deciding on a country within which they would

YEAR	EFTS (INTERNATIONAL)	INCREASE / DECREASE ROUNDED TO NEAREST EFT	PERCENTAGE INCREASE / DECREASE
2002	140.65	Reference	
2003	191.73	51 increase	36.2 increase
2004	196.66	5 increase	2.6 increase
2004 (sem 1)	193	Reference for sem 1, 2005	
2005 (sem 1)	160	33 decrease	17.1 decrease

Table 1- Bachelor of Computing Systems International Student EFTS Summary

like to pursue their higher studies. The authors' experience with international students at their computing department indicates that they choose NZ since there is less red tape (processing, visa etc.) and the costs are affordable. The clean, green and safe environment of NZ is an additional point in its favour. In this paper authors address issues related to globalization of education from the NZ computing education point of view.

The authors feel the need for appropriate planning to maintain and improve the perception by overseas aspirants. The authors will also describe how technology can be used to assist in this endeavor.

New Zealand government and a few related agencies have taken some steps in terms of recognising the problem and proposing some strategic level initiatives (Stevens, 2003). Higher education institutions also have incorporated new changes in their administration (international department etc.), language classes and staff development courses to suit global needs. From the authors perspective additional steps need to be taken to meet the international student's requirements. The authors have proposed four initiatives based on available literature on international education and their personal experiences with international students at their computing school. Use of available technology (audio-visual and multimedia including gaming) as a solution finds special emphasis in this paper. In the authors opinion additional steps likely to improve international education in New Zealand in general and computing & IT students in particular are covered below:

• New focus for teachers

• Global education and the local student

• Multicultural awareness

• Improved communication

Before the above issues are specifically addressed in this paper, current literature on the subject of international education in NZ is reviewed to set the background for the paper.

2.   BACKGROUND

Significant aspects of the literature reviewed are covered below:

In eastern cultures a teacher is portrayed as a role model (Ward, 2003); authoritative, and knowledgeable. The current western view of a teacher is that of a facilitator, organiser, and a friendly critic. In the British system educators expect that students should develop an internal focus and take responsibility for their own learning.

Asian students are usually result oriented and learn by listening and reflection. On the other hand western teachers expect students to develop independence, engage in a dialogue and develop critical thinking. These differences can result in dissatisfying and unproductive classroom encounters. As an example, in Chinese culture questioning a tutor is often considered as disruptive and disrespectful (Ward, 2003). There are large gaps between the expectations of the teachers in NZ and their Asian students.

It has been noted by Stroebe, Lenkert and Jonas that where students interact over longer period with tutors they perceive fewer positive and more negative traits associated with the tutor (Stroebe, Lenkert and Jonas, 1988).

It had been observed that domestic students, and often local teachers, stereotype international students. Domestic students feel that too much time is wasted "on peripheral issues – cross cultural differences in teaching and learning expectations" (Ward, 2003). This may precipitate awkwardness or discomfort among the teaching staff, local students and international students.

Various cross cultural differences exist. Some examples are: intrinsic and extrinsic motivation, preference for co-operative, competitive and individualistic learning style, basic approach to studying, learning styles etc. (Barrette, - Lennard, 1997; Chen, 1994; Irvine & York, 1995; Lee and Lodiwiks 1993).

From the current New Zealand perspective, quiet but attentive students may be perceived as uninterested and withdrawn by local teachers. From international students' perspective frequent interruptions may be perceived as rude and un-mannered (Ward, 2003).

Overseas students desired more error correction. It is believed that they agree with lecturers, and accept their authority. International students perceive domestic students' asking questions as lack of respect for tutor, showing off their knowledge and often take it as over confidence and egotistical behaviour (Ward, 2003).

The school leadership needs to recast its school goals in a way to embrace the global education needs to make the education viable for international students (Tuke, 2004).

The international students too have a responsibility by way of developing a delicate balance of cultural, national, and global identity. The development of reflective cultural, national and global identities in students that would help them acquire knowledge, attitudes and skills needed to function within and across diverse racial, ethnic, cultural, language and religious groups is proposed (Banks, 2003).

A recent citing from NZ media is mentioned herein to establish the importance for reviewing current practices, with a view to bring in effectiveness into the international education process. There were some 11,717 Chinese students in NZ at the end of March 2002. The number has halved this year (2003) due to SARS, tougher immigration laws, and longer visa time, and stringent English language requirements. (XTRAMSN: Business, 2003). A significant downtrend in student numbers has also been noted over the past few years, "New Zealand export education sector faces crises" (Sinoski, 2003).

In response to the above on June 5, 2003 a high level meeting was organised. The participants were leaders from English language schools, universities, Auckland City Council, Ministry of Education and Trade New Zealand. The discussion was aimed at determining why the country is losing students and how to deal with this situation. (XTRAMSN: Business, 2003).

The above observations lay down the background for the international education scene in NZ. It also indicates that there are gaps which indicate the scope for improvement in the spectrum of international students' education. New focus for the teaching staff in view of the global education perspective is considered first.

3. NEW FOCUS FOR TEACHERS

Responsibility to impart education effectively to international students should lie with the teachers since they form the main interface with the international students. Therefore, it is of utmost importance for education institutions to equip teachers with proper tools to handle international education. To address this issue suitable professional development course(s) need to be designed and offered to the teaching staff. These courses should aim to create awareness among teaching staff about different needs and expectations of the overseas students. Courses could have the following themes; understanding different learning styles in the parent countries of international students, English language proficiency and a perspective on attitudinal changes. Understanding the background of international students by tutors alone, may not be sufficient, tutors have to play an active part in making local students aware of the positive impact of the international student contribution to the group learning and New Zealand economy in general. The tutors as well as the orientation staff where used should explain to the class about the local NZ learning environment, which would prove handy to the international students.

3. 1 Learning Styles

Because of lack of understanding, it has been argued by critics that educators frequently adopt negative and stereotypical views of international students (Ballard and Clanchy, 1984). Their opinion about international students is that they are under prepared, unmotivated or unintelligent. This outlook has to change if we want to promote international education.

Majority of international students come from parts of eastern Asia or south Asia. Delivery of the courses in NZ is quite different from these countries (Ward, 2003). Teaching in these countries is teacher centred. Knowledge flows one way. These students are used to taking instructions from teachers. The teacher is looked upon as a subject authority and he/she is obeyed to the letter (no questioning of the teacher's word). These students have yet to take charge of their own learning. Independent learning skills are yet to be developed in them. Student have in most cases not participated in group work or done any collaborative learning either. Therefore, there is a strong need for tutors to be aware of the needs and expectations of the international students. Once tutors have the knowledge of the students' background they could be advised of an appropriate way of guiding and reorienting the international students towards the global education system.

As educators we have to realize that students can be helped from where they are and not from where we expect them to be. Therefore, we have to develop an understanding of the international students' background first and then use the appropriate methods and tools to bring the students to the desirable level. To achieve this, tutors might have to learn suitable methodologies in the following areas:

• Guiding international students towards independent and collaborative learning.

• Providing information about norms and practices of group work.

• Explaining globally acceptable norms of plagiarism.

•Emphasizing the need to follow administrative instructions to the letter (submitting assignment on the specified date and time, "pen down" means no more writing).

• Inform them about the consequences of not following instructions clearly.

Tutors may also have to be made aware that implementation of changes in students can only be gradual. Sudden change can only hamper the progress of international students. Tutors would require a lot more patience and empathy to shoulder this new responsibility.

A large number of international students are young and immature on arrival. Pastoral care would greatly help in their adjusting to the new environment. Educational institutes should strive to gradually guide them from dependence to independence. It would be appropriate to explain them the benefits that would accrue by adapting to this new approach.

3.2 Usage of Technology as a solution

Audio visual recordings including multimedia CDs depicting class room activities from student's parent countries could help tutors understand the international student's background. Videos should be able to show how the students were taught, what was expected from them and also demonstrate their expectations of their tutor. This will ease the frustrations teachers feel while dealing with international students, since they will be prepared for change.

Besides preparing the teacher for addressing the international students, multimedia course material can be placed on the web for off line learning by students.

• Video clips could be used to explain independent and collaborative learning to students.

• Norms and practices described above need to be reinforced from time to time from different standpoints by using different examples.

• Students can be made to understand global perspective of plagiarism by showing different cases of these instances as video/multimedia clips. There could be a frequently asked questions (FAQ) section to interactively answer students' queries.

3. 3 Language Issue

For international students English is not their first language. Although they might have fulfilled English language requirements (TOEFL / IELTS) for getting admission into NZ educational Insti-

tutions, they still lack communication skills to express themselves adequately in English. They are yet to develop thinking skills in English. To handle this language issue, tutors could be advised to take multiple steps. Some of the steps that could prove helpful are given here:

• The classes could be divided based on English proficiency of individual student in the first semester.

• It may be a good idea to have smaller size classes so that tutors can pay more attention to individual students.

• Tutors may have to put extra efforts to encourage the student-teacher dialogues, since they are used to only one-way communication and may be embarrassed to ask questions.

• International students require more time for understanding and reacting to instructions or answering questions.

3.4 Language assistance

It has been observed and established that international students might take more time for assimilating knowledge in the classroom. It would prove useful if class room learning is available as an offline multimedia version of the teaching material on a CD. This would help students to study the material at a place of their choosing, as many times as desired by them without embarrassing themselves or taxing the teacher.

The above Multimedia approach can also encourage shy students to communicate. Purushotma proposes the use of simulation games that are already popular which could be modified to create a bilingual environment thereby providing a strong contextual support for English the target language as well as the fun from gaming (Purushotma, 2005).

The multimedia recordings discussed above could also serve the purpose of helping tutors to improve their educational delivery by emphasizing things/styles that worked and restructuring aspects of delivery that did not work.

3.5 Global Perspective

Delivery of the courses should be based on a global perspective. This should include delivery to internationally acceptable education standards (Ward, 2003). Usage of case studies and examples should be made from an international point of view. Basically internationalisation of education requires a shift in our thinking and attitudes, towards teaching. Therefore, teaching staff needs to be exposed to the new scenario of education that is no longer confined to their local country's boundary (its methodologies, business environment, expectations, norms etc.). The new education scenario should embrace all that is desirable and suitable for worldwide application. Today's students are no longer confined to a particular country; they are required to serve the needs of the international community. The attitudinal issues leading to stereotyping students need to be set aside. If NZ is not in tune with the global market it will soon find itself out of place in the world wide competitive education market. A professional development course addressing education from a global perspective and the desirable attitudinal changes required for its implementation is very much needed for effective international education.

Teaching in this scenario also requires an unprejudiced open mind. While this is known to most educationists unless this is put into practice it is of little use. Therefore the staff development courses should emphasize practices that are based on strategies for global education. Stereotyping and rejecting things without due consideration should also be discouraged.

Revised codes of ethical practices, covering both acceptable and unacceptable practices and behaviour in New Zealand should be defined and tutors made aware. They should be advised how best they can implement these and communicate these to all students. Students might not retain information and this might require reinforcing these from time to time in a variety of ways. Besides these it would be a good idea to inform the staff about the global market, business nuances, etiquette, global networking etc.

International students might require periodic monitoring of their performance which would help tutors to take necessary steps to achieve the desired learning.

3.5.1 Contribution of Audio Visual Aids and Interactive Multimedia

Suggested approach covering some of the technology solutions are mentioned below:

Using pre-recorded audio visual scenarios, teachers can also be warned against stereotyping and prejudice by way of examples so that they do not unknowingly act in unacceptable ways.

Online auditing of learning by international students could be made where web based course material is available. This could help in the monitoring of the progress of international students. It may be desirable to emphasize that auditing is being done for their benefit and not as a policing function.

International students might not feel comfortable about asserting their rights through an interactive style of learning in the classroom. However, using audio visual examples for training them to this new learning style, students in due course would not deem asking questions and seeking clarifications or expressing their opinion as being disrespectful to the tutor.

Since students are given global education they would also appreciate abiding by universally accepted ethical norms. This could also be made clear by exposing them to different case studies and by role-playing to clearly understand the big picture.

3.5.2 Technology as a reusable solution

Since audio visual recordings from multimedia CDs could be used repeatedly, information could be disseminated by tutors without feeling annoyed and overworked. Teaching aids as stated above could also help in dealing with delicate issues conveying the dos, don'ts from an ethical angle and the teaching practice in general without embarrassing any person/ party in the learning process.

4. GLOBAL EDUCATION AND THE LOCAL STUDENT

In catering to the needs of international students, we cannot forget the needs and the expectations of our local students. The subsections that follow discuss this issue.

4.1   Local Student Perspective

Earlier studies reveal poor or no social interaction between local and international students. Some observations in this regard are mentioned below:

In connection with best friends of international students "…. majority of them are co-nationals or other international students" (Ward, 2003).

Quote from an international student "when I first came, I had the expectation to know many domestic students but did not. Only hi-bye friends, not close friends" (Ward, 2003).

It is observed that international students put more demand on Institute's resources and support services. Studies show that international students have more problems than domestic students (Ward, 2003). If local students have to learn to accommodate to revised teaching as well as to the sharing of supporting resources with international students, they would surely be interested in knowing what do they get out of this adjustment? Most of the time the education scene is viewed negatively by local students, some of these areas include:

• Racial disharmony.

• Different learning styles of international students.

• Domestic students feel that international students expect more help from teacher.

• New Zealand student being envious of the spending power of some international students.

Once local students are familiar with the big picture covering both the positive and the negative aspects, they would realise the benefits that accrue outweigh the seemingly negative things (patience and extra effort at communication etc.). Generally there is low interaction between local and international students. International students expect and desire greater contact (Ward, 2003) with domestic student to satisfy their psychological, social and academic needs. They prefer co-national contact to affirm cultural identity and lend psychological support.

Studies show that domestic students are largely uninterested in contact (Ward, 2003) or communication with their international counterparts. Therefore it might be a good idea to organize activities that require participation

of international and local students in mixed groups. The interaction will give local students the opportunity for understanding of the others' cultures and make them more sensitive towards them. This will also help local students towards becoming global citizens.

4.2 Suggested Approach

To overcome this negative attitude discussed above, the following activities are suggested:

Local students should be made aware of the big picture, conveying how the presence of international students benefits their learning. They should be made aware of the positive aspect of globalisation of education.

Local students are motivated to consider the new learning environment as an opportunity to become a global citizen and broaden their horizon in education and other fields.

It is important to involve local students and international students in group activities to integrate them through team building activities. Local students could be exposed to international student's background by showing them audio-video clips of their learning and their cultural activities. This will inform local students on aspects that inhibit their social interaction.

4.3 Management's Strategies

Management could also participate by structuring situations in such a way that it fosters and promotes intercultural interaction and understanding. Following activities might be helpful in this regard

• Peer – pairing, use of experienced students as buddies, mentors, (International Students Forum, 2003, Ward, 2003).

• Cooperative learning and residential programmes, (Ward, 2003).

• Collaborative activity for which they meet regularly outside classroom.

• Enhance cultural awareness (screen movies, video shows).

• Reduce stereotyping and increase the willingness to work together (Ward, 2003).

Apprising domestic students about the advantages that can be gained from interaction with their international counterparts. To achieve this, the following could be done:

• Expose local students to other cultures.

• Explain the financial benefit to the country.

• Make domestic students aware of good work habits of international students.

• Show them how international students can enrich courses and enhance international understanding (McCollow, 1989).

5. MULTICULTURAL AWARENESS

For international education it is vital that local staff and students are exposed to other cultures. This would create a better understanding of international students among local Staff and students. As a consequence they would gain a better understanding and this in turn would make them more sensitive towards international student needs. Local staff and students should be advised not to be racists and avoid stereotyping. Following activities might help in promoting this:

Understanding the differences in cultures and acknowledging and accepting cultural differences (Ward, 2003). Some examples here are: eye contact with the tutor, reluctance of international students to take part in discussions etc. Awareness of different educational expectations from different cultures. These issues could be addressed by viewing video tapes /multimedia CDs of class rooms and cultural activities of different countries etc.

Developing support systems to address cultural barriers. Informing students that it is all right to express their difficulties. Acquainting all parties involved with different learning styles. Indulging in multi-cultural - recreation.

6. COMMUNICATION

It is of utmost importance that international students are clearly informed about what is expected and accepted in New Zealand. This should be reinforced from time to time in a variety of ways since students may not retain isolated information. Technology can play a major role in enhancing information exchange between local

students and teachers using multiple media and interactive resources.

Advise teachers to be proactive rather than reactive. Clearly state the teaching strategies followed in the course, covering areas like group discussion, presentation by students etc. Repeat information using different words and possibly body language to ensure understanding at the same time permit additional time to international students to articulate. Tutors should be apprised of some students seeking clarification in their native language from those who have better grasp of the language. Discuss plagiarism issues from an international perspective.

Communication of all the procedures to international students should be done in simple English. It might be presented in multiple ways and repeated frequently. Where New Zealand examples are used, the tutor must provide the background information, and be more aware of using proverbial language.

Buddy/ peer scheme could assist international students to adapt early to the new environment. This would facilitate intercultural interaction (International Students Forum, 2003, Ward, 2003). Buddy/peer teams could meet, on a regular basis with a view to help in studies and/or, arrange family interaction, travel, sports, recreation, social activities etc. This would result in increased cultural awareness and sensitivity, friendship, opportunity for future work, travel, and study abroad. In the first week of arrival, International students are quite confused (socially, culturally and educationally too), buddies, domestic students, can help them to settle down and adjust quickly.

A few points that may prove useful are covered below:

• Regular monitoring of their progress, so that any communication gap can be bridged earlier. Different expectations in respect of the learning styles need to be explained.

• Complaint procedures clearly explained to them. Making students feel comfortable to put in a complaint and giving their feed back.

• Advisory service should be available for students (driving, road rules, health education).

• Cultural differences in communications recognised and attended to.

7. CONCLUSION

Lack of research on the subject of international student education has been identified as a barrier. In this paper the authors have discussed the issues only from a computing educational perspective. Four areas were identified and addressed, that would help in creating a win-win situation for both the international students and New Zealand. Both the local Staff and the students have to be prepared for this new scenario by proper exposure to the global perspective of education through appropriate staff development courses and awareness programmes. Since most international students do not have English as their first language, suitable changes need to be made in the social and the classroom environment. This will be achievable only when there is good communication among teacher- student and student-student.

It may be appropriate to mention some recent observations by authors that are rather positive for the learning process. A large number of international students welcome decreased emphasis on rote learning and appreciate a more open relationship with the teachers. Some are even enthusiastic about applied and an interactive learning process. Some of these new changes being observed being as a result of language difficulties to rote learn cannot be ruled out. Although international students generally do not possess good language skills, teaching staff may come across some new experiences such as:

• The knowledge levels of international students are far better in students who have attended recognised computing courses of study before coming to NZ. Generally they are quite hardworking and devote most of their time to their studies.

• They can be a good source of a healthy competition for local students.

• These students, who come from different countries, could form a source of diverse learning bringing richness and variety into the learning process. However, active participation by these students is a prerequisite for this.

The expectations from teaching staff have increased (Ward, 2003); therefore it would be a good idea to provide formal support structures and required resources to the academic staff

members. If all the needed steps are taken in good measure there is no doubt that New Zealand will be among one of the leading education providers in the world. Audio visual and multimedia can help bring down the barriers and smooth the relationship and thereby help international students to adjust to the new environment much earlier than that which prevails currently. Labour market research programme conducted at Massey University revealed that polytechnics and universities ought to consult more closely with industry to make their courses relevant (Spoonley, 2005). SCIT could add value to its programmes by adding course material relevant to international industry requirements. This would not only make the courses relevant to industry requirements but also bring in much needed international standardisation in the delivery that would benefit both the international students and the local students.

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