Turning International Students Problems into Plans

Christo Potgieter

Wintec

`christo.potgieter@wintec.ac.nz`

Abstract

"Special Topic – Current Development in IT" in GradDip caters for focussed study of topic of choice by means of literature study, working independently. International students study the course during their first semester. Marks are awarded for the plan, final report, poster and presentation. We faced many challenges and therefore refined our approach.

Keywords: Computing education, International students

1   Situation

We assumed it should be easy for students to do considering two thirds already hold degrees from overseas in IT! Weekly classes, lead by tutor, took the form of discussions of experiences. Also did individual consultation as required.

> *Course Prescription: The purpose of this module encourages the student to explore current developments in any area of the IT industry, investigating the theoretical foundations, the people who are driving the technology, and the impact this type of technology.*

2   Experience

Well-known issues of international students manifested: Language (in classroom communications and writing), "plagiarism" and frail study methods. "*Instructional*" classroom tutoring is also preferred to independent work.

Anecdotal evidence indicated students experienced the independent study process as overwhelming, demanding and overall very challenging. Early negative experience could be detrimental to confidence, motivation and satisfaction, thus learning outcomes.

We noticed typical weaknesses of International students in doing literature studies: Absence of clinical approach, depending on weak sources, difficulty in processing range of material, little synthesis, evidently uncritical, tend towards technical details vs oversight.

Studying current developments with its impact is complicated by the fact that solid/proven literature typically used for degree study students (NQF L7) appears to be not readily available. Also, sound/credible literature appears narrow focussed, less in public domain and written in complex style. All of these significantly increase the demands place on international students.

Other concerns about student skills include ICT use (for report writing and presentation), doing large pieces of work, genuine understanding/insight and student need for frequent individualized constructive feedback (but that requires significant extra time from the tutor).

Prior qualification played an interesting role: Students with prior/overseas IT degrees were strong with technical details, thus saving time with reading, but non-IT degree students more readily presented readable oversight, generalization and implication, thus better rounding.

A broad range of topics were chosen by students, for example Artificial Intelligence, Data Warehousing, Cloud Computing, Robotics, Call Centres, Nano technology, Biometrics, Multicore processors, Transport security and apparent particular interest in networking (Wireless, Security, Simulators, 3G, Privacy). This limits collaboration with co-students. .

Final products were at required level (NQF L7) and sufficient quality to pass but it seems a messy road!

3   Learning and conclusion

Noted/concluded:

a) In effect, students are doing part of a "mini-dissertation", namely the literature study.
b) Similarity to IT degree capstone project, eg. being "ambiguous and complex" (Chard, 2009).
c) Issues for international students become more intense for all parties involved.
d) Weak student skills re PC use, language and work methods becomes more exposed.
e) The current approach does not exploit the possibilities of students holding extensive IT training.

4   The future

Kourie (2001) proposed that "best practice teaching" actually *deprives the student of the benefits of self-discovery, intellectual ownership and responsibility*! Some planning and control is still advisable, so we:

a) Continue special support for international students
b) Exploit weekly group sessions for students to share
c) Explore literature on final year capstone projects
d) Explore *principles* of mentoring for mini-dissertations
e) Explore integrating student skills building into course
f) Explore literature on self-directed study
g) Explore doing an IT project in NZ environment
h) Remain flexible to meet unique student needs

5   References

Chard, S. Et al. (2009). ICT Capstone projects: 'the edge of chaos'. Proceedings of the 22nd Annual Conference of NACCQ 2009, Auckland, New Zealand.

Kourie, D.G. (2001) *On the benefits of bad teaching*. Proceedings of South African Computer Lecturers Association., Pretoria, 2001. Accessed 15 Aug 2009 at http://www.cs.up.ac.za/cs/dkourie/Articles/The%20Benefits%20of%20Bad%20Teaching.pdf