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International students' experiences of informed learning: A pedagogical case study

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Abstract

This case study explores the theory and practice of informed learning (Bruce, 2008) in a culturally diverse higher education context. It presents research findings about learning and teaching in a postgraduate unit of study entitled Personalised Language Development, an elective in the Master of TESOL and TEFL programs at Queensland University of Technology (QUT). This unit aims to enable international students to extend their disciplinary knowledge of English language teaching, their academic and linguistic fluency and awareness of their own information using processes. The paper outlines the case study research approach; describes the design and implementation of the unit; demonstrates how informed learning principles and characteristics underpin the unit design; presents findings about the international students' experiences of informed learning through their reflections; and finally the paper discusses the implications of the findings for educators, including the potential transferability of informed learning across higher education disciplines.

Introduction

Informed learning (Bruce, 2008; Bruce & Hughes, 2010) is a relatively new pedagogical construct which seeks to expand learners' experiences of using information to learn, and bring about changes in the ways they understand or interact with their world. While informed learning is applicable to a variety of contexts, this paper presents a qualitative case study (Yin, 2009) which demonstrates its potential to support learning in a culturally diverse higher education context. The case study explores the experiences of international students in a unit of study entitled Personalised Language Development, an elective in the Master of TESOL and Master of TEFL¹ programs² at Queensland University of Technology (QUT). Illustrating informed learning from theory to practice, the case study reveals how informed learning pedagogy enabled international students to extend their disciplinary knowledge of English language teaching, their linguistic fluency and awareness of their own information using processes.

The case study comprises seven main parts: *Background* provides a brief introduction to international students and informed learning; *Case study design* outlines the research approach;

¹ TESOL = Teaching English to Speakers of Other Languages; TEFL = Teaching English as a Foreign Language.

² The terms *unit* and *program* reflect QUT's terminology; thus, the MEd (TESOL) degree *program* comprises 8 *units* of study.

Case study context describes the research site and participants; *Unit overview* outlines the objectives, learning activities and assessment of the Personalised Language Development unit; *Unit design* highlights the underlying informed learning principles and characteristics; *International students' reflections on informed learning* presents the learners' experiences in the unit; and *Discussion* considers the implications of the case study for educators and the potential transferability of informed learning across higher education disciplines in culturally diverse contexts.

Background

International students

For reasons of educational equity and commercial sustainability, universities are compelled to address the needs of international students, who constitute a significant proportion of increasingly diverse higher education student populations, over 22.3% in Australia (Australian Government. AEI, 2011). Research shows that international students in Australia and elsewhere experience various challenges, which are often associated with unfamiliar information using and academic practices at their host university (Benzie, 2008; Carrol & Ryan 2005; Gebhard, 2012; Hughes, 2013; Mehra & Bilal 2007; Phakiti & Li, 2011; Sherry, Thomas & Chui, 2010; Sovic, 2008). In common with many domestic students, international students often display an 'information literacy imbalance' between well developed ICT skills and a less developed critical information using approach (Hughes, Bruce & Edwards, 2007). International students are often differentiated as 'special needs' or 'non-traditional' students, with an assumed range of difficulties to be addressed through special learning support and information literacy programmes (Benzie, 2008; Trew 2006). However, this tends to promote a deficit teaching approach (Biggs & Tang, 2007), with an emphasis on learner differences and difficulties. In response, this case study presents informed learning as an inclusive pedagogical approach to support the academic success of international students in a culturally diverse community of learners.

Informed learning

Informed learning is about "using information to learn" (Bruce, 2008). It assumes that using information and content learning are inextricably linked; that we can experience using information to learn in varied ways; and that learning leads to new ways of understanding or seeing the world (Marton & Booth, 1997). Conceptually, informed learning builds on information literacy research, which shows using information to learn as a complex experience comprising seven inter-related 'faces' (Bruce, 1997; Bruce, 2008). Thus, informed learning proposes that as information users and learners we are immersed in an information-rich environment. Information has multiple types, forms and sources: it can be whatever is informing in a particular context; and that which informs can be experienced as objective, subjective or transformative.

In practice, informed learning may occur in formal and informal contexts (Bruce & Hughes, 2010; Bruce, Hughes & Somerville, 2012). For example, it has already been applied to online learning (Hughes, 2012), professional development (Bruce, Hughes & Somerville, 2012), organisational revisioning (Somerville, 2009) and aligned with problem based learning (Diekema, Holliday & Leary, 2011). In higher education, informed learning supports a holistic approach where students simultaneously learn about particular subjects(s) and about using information critically, creatively, ethically and creatively. It also offers a conceptual framework for developing curriculum and pedagogy across disciplines and academic levels.

Conceptually, informed learning incorporates three principles and twelve characteristics. The principles define the aims of informed learning, while the characteristics describe its nature. The three principles are that informed learning:

- 1) takes into account learners' experiences of information use: it brings students' attention to the character of informed learning and fosters reflection

2) promotes simultaneous learning about a disciplinary subject and about information use (content and process): it enables students to learn through effective interaction with information, 3) brings about changes in learners' experience of information use and content being learned: it empowers learners through developing new and more complex ways of working with information. In accordance with these principles, informed learning engenders a holistic learning approach rather than mastery of a set of information skills.

The characteristics of informed learning are summarised in Table 1 below.

Characteristics of informed learning	Informed learning ...
Expansive	seeks to expand learners' awareness, experiences and repertoire of different ways of using information to learn
Eclectic	engages learners with information of multiple forms, sources and media
Grounded	focuses learners' attention on authentic information using and learning practices related to their academic or professional experience
Contextualised	develops learners' familiarity with information pertinent to particular disciplines and contexts (formal and informal)
Active	supports learners' active engagement in collaborative and independent learning, problem-solving, evidence-based practice, research and innovation
Reflective	enables learners to draw on their intuition and previous experiences and extend their understanding through reflection
Creative	enables learners to apply new information and understandings to the creation, application and dissemination of new knowledge in familiar and novel contexts
Socially responsible	promotes learners' ethical and wise information use, respecting the rights, safety and privacy of all information users, and enabling informed decision-making and activity
Inclusive	celebrates diversity and promotes learners' social and cultural awareness, community engagement and shared learning
Collaborative	shares responsibility for learning and teaching between learners, educators, researchers, information and ICT professionals, industry and the community
Balanced	fosters a holistic learning approach that develops learners' critical, ethical, reflective and creative information use beyond information skills
Transformative	brings about change in the ways learners understand themselves, their discipline and professional practice, for personal and social well being and empowerment

Table 1: Informed learning characteristics

Case study design

This case study explores the potential of informed learning to enhance learning experiences and outcomes in a culturally diverse higher education context. By focusing on the design and implementation of a unit of study which caters mainly for international students, it addresses the research question: *How do international students experience informed learning?*

We followed a case study approach because it allows nuanced exploration and depiction of a phenomenon within a real life context (Yin, 2009). In this instance, the phenomenon was informed learning and the context was the unit Personalised Language Development within the Master of TESOL and Master of TEFL programs at QUT, Australia. The case study participants were 22 international students who completed the unit in Semester 2 of 2009 or 2011. They are considered as a single case, since in both years they experienced the same unit objectives, learning activities and assessment, and teacher.

The unit coordinator (Hughes) who designed and taught the unit was also the principal researcher and used the same research process and protocols in both years. At the end of each semester, once all teaching and assessment had been completed and students' grades had been uploaded, she sent an email inviting them to participate in the research. The invitation included written

information about the project and a consent form. It requested volunteers to (a) submit critical reflections and/or (b) take part in individual interviews with the researcher.

Data collection and analysis

To gain varied insights into the students' experiences of informed learning in the unit Personalised Language Development, and in accordance with case study method (Yin, 2009), we collected and analysed data from two sources: student's written reflections and semi-structured interview responses.

The 18 written reflections collected for this research were part of the students' final assignment and were drawn from more extensive informed learning journals that they had written throughout the unit. The assignment guidelines required students to:

Think of two or three critical incidents that you have experienced, that are related in some way to the unit CLN617. They can be positive or negative incidents. Briefly describe each incident, then reflect on:

- *Why the incident has stayed in your mind*
- *What you learned as a result of the incident*
- *How the incident might influence the way in which you think or do things in future*
- *The overall meaning of the incident for you as an informed learner and teacher*

The semi-structured interviews involved 11 international students. They lasted 30-45 minutes and were audio-recorded and then professionally transcribed verbatim. Rapport between the interviewer and the students was already developed after working together for one semester in the unit. However, the interviewer took care to explain the changed nature of their relationship, as researcher and participants.

All interviews (in 2009 and 2011) included the same three open-ended questions:

- 1) *Looking back over your experience of CLN617...*
 - *What have you found interesting or different about CLN617?*
- 2) *Looking forwards from CLN617...*
 - *How will you use what you have learned in CLN617 in your future teaching?*
 - *How will you use what you have learned in CLN617 in your future learning?*
- 3) *For you, what is "informed learning"?*

For data analysis, the researcher used an inductive approach (Creswell, 2012; Silverman & Marvasti, 2008) that involved repeated, close reading of the students' reflections and interview responses. She identified and then condensed key themes (Creswell, 2012), using the characteristics of informed learning as an analytical framework. The findings reflect the international students' experiences of informed learning in the unit, whilst demonstrating the successful application of informed learning to an authentic culturally diverse higher education context.

Case study context and participants

The case study focuses on a unit of study within the Master of TESOL/TEFL program at QUT, a major teaching and research university in Brisbane, Australia. It offers a wide range of undergraduate and postgraduate degree programs. International students form a significant proportion of QUT's population: 15.8% in 2010 (Australian Government. AEI, 2011). The Master of TESOL/TEFL program, which is situated within the Education Faculty, has about 500 enrolled students each year.

The case study features 22 international students who completed the Personalised Language Development unit in 2009 or 2011. They represent 25% of all students who completed the unit in 2009 and 2010. As Table 2 below shows, the students had varied linguistic and cultural backgrounds, with the majority coming from the People's Republic China. All were qualified

Englished language teachers with previous professional experience in their home country. Thus, the participants reflected the demographic mix of the unit's population.

Year	Total students in unit	Case study participants			Participation in data collection		
		Case study participants	Nationality	Gender	Reflection only	Interview only	Reflection and interview
2009	41	14 (34%)	China 11 Saudi Arabia 2 South Korea 1	Female 8 Male 3 Male 2 Female 1	7	4	4
2011	46	8 (17%)	China 6 India 1 Taiwan 1	Female 4 Male 2 Female 1 Male 1	5	1	2
TOTAL	87	22 (25%)	China 17 India 1 Saudi Arabia 2 South Korea 1 Taiwan 1	Female 14 Male 8	12	5	6

Table 2: International students featured in case study

Unit overview: Personalised Language Development

Personalised Language Development offers an opportunity for international students to become confident informed learners at QUT. By developing familiarity with prevailing academic language, information sources, conventions and practices, it addresses previously identified information-learning needs of international students at a host university (Benzie, 2008; Carrol & Ryan 2005; Gebhard, 2012; Hughes, 2013; Phakiti & Li, 2011; Sherry, Thomas & Chui, 2010; Mehra & Bilal 2007; Sovic, 2008).

The unit's learning objectives are to:

- Enhance English language fluency, especially scholarly writing and oral communication
- Extend disciplinary knowledge of second/foreign language learning and teaching
- Develop familiarity with the Australian academic environment and conventions
- Develop awareness of a diverse range of information types, sources and media
- Develop a critical, creative, reflective and ethical approach to using information for learning, research and professional practice
- Explore concepts and practices of informed learning

These objectives are entwined and offer students a holistic informed learning experience. The first two objectives address disciplinary requirements, the third contextualises the learning, and the remaining objectives relate to the processes of informed learning. In practice, they allow development of common language and approach, whilst fostering a community of informed learners and teachers.

The learning and assessment focus for the whole unit is creating a literature review on a topic related to second language learning, with a view to supporting independent inquiry and collaborative learning as well as enhanced English language fluency. The concepts 'literature review' and 'second language learning' are interpreted broadly so that students may engage in varied information using and learning experiences, whilst pursuing a personally relevant issue.

Students attend weekly seminars, which cover different aspects of language learning and informed learning theory, academic discourse and research practice. Learning activities include formal information exchange, informal discussion, research planning and implementation, writing and oral practice, role play and quizzes. Through these activities, the students experience using information

in different ways, for example by summarising the argument of an academic article; sharing resources and feedback with peers via a wiki; brainstorming and mapping information around a focus question. They also develop the four core language skills of reading, writing, listening and speaking (Nunan, 1999). For example, students develop advanced reading and writing capabilities through evaluating, selecting and synthesising scholarly information to support an academic argument.

Throughout, students are encouraged to draw on and share their varied experiences, knowledge and linguistic strengths; to think of themselves as informed learners embarking on an informed learning journey; to view their peers as fellow travellers and their teacher as guide. While each individual is responsible for their own progress, this is a shared journey and everyone is a potential source of information and support. For example, at the start of each class, students share their informed learning travellers' tales of their formal or informal learning. One student told how Endnote training at the library had helped her organise her literature review (formal learning), while another described an incident when a street busker taught her to play African drums (informal learning with a cultural twist).

Assessment has four inter-related components, which also integrate various information using and language learning experiences. They comprise: a literature review (formal academic composition and critical perspectives on their chosen topic); a curriculum design report (creative application of literature review findings to a practical context); an oral presentation (communicating findings to peers); and an informed learning journal (reflective writing, sense-making about their information using and learning experiences through the unit).

Unit design: Informed learning principles and characteristics

The unit design intentionally incorporates the informed learning principles and characteristics outlined previously. First principle, the unit allows for the international students' previous information using experiences and disciplinary knowledge. In the first two weeks, they identify their current information using strengths and needs, associated with their diverse educational backgrounds, existing knowledge of information sources and practices, linguistic capabilities and varied cultural perspectives. Later, they draw on their previous experiences as educators and learners when engaging with theoretical concepts in their reading and discussion. They also reflect on their current learning, and how it builds on their previous experiences and may be applied in their future practice. In this way they critically consider their own capacity to learn as they engage with information in various forms and develop awareness of the transferability of this approach to other contexts.

Second principle, the unit promotes simultaneous development of discipline learning (second language learning) and process learning (using information). The focus on creating a literature review enables students to simultaneously develop knowledge about their chosen topic, whilst extending their English language capabilities and learning to use information creatively, reflectively and ethically. In other words, they are learning about research and practice in the field of second language learning through the lens of informed learning.

Third principle, varied learning activities and reflective journaling unit enable students to experience informed learning in different ways, which bring about new knowledge and changed understandings.

The unit design also reflects the twelve characteristics of informed learning, as exemplified in the following Table 3.

Characteristics of informed learning	in the design of Personalised Language Development ...
Expansive	Students <i>expand</i> their knowledge and experience of English language learning and teaching, informed learning theory and practice, academic information sources and conventions, through unit content, varied learning activities, feedback and assessment.
Eclectic	Students explore a widely <i>eclectic</i> range of information sources in researching their topic: print; academic databases; social media; scholarly and professional journals; news sources; personal communication.
Grounded	Students engage in learning activities and assessment which are <i>grounded</i> in, and develop familiarity with prevailing academic practices and pedagogy at QUT.
Contextualised	Students experience different ways of using information to learn within their disciplinary <i>context</i> of English as a Second/Foreign language.
Active	Students <i>actively</i> participate in independent inquiry, informal information sharing, formal discussion and problem solving.
Reflective	Students develop a <i>reflective</i> learning approach, by discussing discoveries with peers; and writing reflective journals around critical incidents in their informed learning journey.
Creative	Students <i>creatively</i> apply the findings from their literature review to a practical language teaching design for their own professional context.
Socially responsible	Students develop a <i>socially responsible</i> and ethical approach to using information in developing/presenting a literature review; consider differing cultural perspectives & Australian conventions for individual and collective scholarship; focus on academic integrity and mutual respect for own and others' intellectual work, privacy and safety.
Inclusive	Students experience an <i>inclusive</i> learning environment which embraces cultural and linguistic diversity and associated learning benefits; draw on and share varied knowledge, personal and professional experiences; provide peer support.
Collaborative	Students experience <i>collaborative</i> learning and teaching; for example, through regular team-based activities and peer feedback; librarians and learning specialists contribute to teaching and support students through online and personal consultations.
Balanced	Students develop a critical, creative and reflective approach to using information to learn, through researching and presenting a literature review; this <i>balances</i> their generally more developed digital information skills.
Transformative	Students experience transformative outcomes through experiencing different ways of using information to learn about second language learning, academic writing and scholarly practices; develop fresh understandings about their role as informed learners and informed English language teachers, for current and future situations.

Table 3 Characteristics of informed learning in Personalised Language Development

International students' reflections on informed learning

Having discussed the design of Personalised Language Development, we now illustrate students' experiences of informed learning in the unit, as revealed through their written and oral reflections. Throughout this part we indicate how the students' reflections resonate with informed learning principles and characteristics. The reflections encompass three themes: *Reflecting on understandings*, where the students explain how they conceptualise informed learning; *Reflecting back*, where the students reflect on how they experienced informed learning in the unit; *Reflecting forward*, where the students reflect on how they will use what they learned in the unit in their future learning and teaching.³

³ Pseudonyms are used to preserve students' confidentiality. Ref-09 = Reflection 2009; Ref-11 = Reflection 2011; Int-09 = Interview 2009; Int-11 = Interview 2011

Reflecting on understandings of informed learning

The students' reflections show that through their experiences in the unit they developed conceptual understandings of informed learning. Their frequent descriptions of informed learning as 'reflective' and 'critical' seem to align with the balanced characteristic of informed learning, while 'ethical' would relate to the 'socially responsible' characteristic. Moreover, students recognised that informed learning is 'independent' or 'self-directed' (active characteristic) as well as 'collaborative' and 'cooperative' (collaborative characteristic).

The principle that informed learning takes into account learners' experiences of information use is evident in Ana's (Int-09) comment:

When we ... learn something we will try to explore it, the real meaning, and that together with your own experience; and also during this process you are trying to gather more information; and also information ... is helping you develop your learning.

The principle that informed learning promotes simultaneous learning about disciplinary content and information use is inherent in students' reflections where they often link ideas about 'learning' with 'using information' and 'many sources'.

In line with the principle that informed learning brings about changes in learners' experience of information use and content being learned, several students associated informed learning with exploring ideas and the notion of a journey. While Ana (Ref-09) described it as "a journey filled with exciting findings" Zara commented that "knowledge and experience go the same way" when making this journey.

For international students, changes in experience often have cultural dimensions. Thus, Jason (Int-09) emphasised differences between teacher-centred instruction in China and the learner-centred approach he experienced in Personalised Language Development. He also contrasted previous rote memorisation with the informed learning approach where:

You just have to ... constantly think about ...how you learn, why you learn, how you learn better and find out why

Changes in experience were often associated with differences and challenges. However, with regard to informed learning, students generally understood challenges to be part of a developmental learning process. Thus, Zara (Int-09) stated:

I would say that [informed learning] means that it is OK to make a mistake as long as we don't repeat it again ... it is ok to go through challenging things; it's ok that the outcome ... is worse than you are expecting; is OK as long as you know what was wrong then you try to improve it ... Informed learning is part of a journey and you will be scaffolded by this challenging, but be aware of something that can improve your next process.

Returning to the journey metaphor, some recognised the importance of support from peers and teachers in negotiating the challenges. According to Dennis (Int-09):

On this learning journey the learners will get a lot of support and of course this kind of support ... [is] more than knowledge itself.

Despite the challenges, students generally viewed informed learning in a favourable light. Dennis (Ref-09) concluded that informed learning is:

Less that of a hard job, more that of an enjoyable experience.

Tania (Ref-09) summed up her understanding of informed learning with a metaphorical flourish:

The informed learning journey looks like an alley bordered by a lot of wonderful flowers. Learners gather these beautiful things while walking and now it is time for harvest festival.

Reflecting back on informed learning

Reflecting back over the unit, students described many new or different experiences associated with informed learning. They identified positive aspects and challenges, as well various emotions. The following examples illustrate how students experienced the expansive, balanced,

collaborative, inclusive and transformative characteristics of informed learning; these characteristics were particularly prominent in their reflections.

Expansive

The expansive characteristic is associated with expanding students' awareness, experiences and repertoire of different ways of using information to learn. It was commonly experienced by these international students whilst negotiating a new learning environment and unfamiliar learning and teaching approaches.

Ian (from Saudi Arabia) commented that "the whole operation was new to me". He was unused to "student-centred learning" and the need to "search for, and collect my own information and find appropriate literature that could support my point of view". Similarly, students commented about unfamiliar approaches to academic thinking and writing. Connie (from China) (Ref-09) explained:

The teaching here is different from the teaching [and] the learning experience back home, because ... when I studied in the university we just accept what the instructors say - the education back home is not something that tends to be critical or emphasise on critical thinking, it just says 'oh this is right'; we accept it and sometimes maybe we can have our own opinions, but we seldom speak out.

Anticipating such challenges, the unit set out to provide a supportive environment and clearly defined learning process. Thus it is notable that several students found the unit's 'step by step' structure helpful. As Tania (Ref-09) explained:

This unit is just like a scaffold which underpins all my academic writing skills and language development process.

Students' reflections indicate that by engaging with a gradually increasing range of informed learning concepts and strategies, they developed more critical and creative academic approach, as David (Ref-09) reported:

I [now] know how to write a coherent and cohesive literature review, what are the formal and/or informal use of some vocabulary, how to find resources to support my writing and what appropriate use can be made of references to assist demonstration of viewpoints.

In addition, students' oral briefings about their literature review findings, led to "so many fabulous ideas and discussions on teaching" (Ana, Ref-09) as well as new communication strategies. Several students reflected that the oral briefings and the unit's weekly presentations had shown them how to use PowerPoint graphics to summarise key points and images to stimulate more nuanced thinking. Thus, Martin (Ref-09) indicates a developing pedagogical awareness of the importance of visual information:

The smart use of slides and the use of some expressive pictures gave a unique flavour to every subject every week. I had not been aware of visual learning tools and the fact that there are some visual learners. Using visual learning tools is a creative and very effective way to explain, because some students learn better visually.

Balanced

The balanced characteristic is associated with developing a critical, ethical, reflective and creative approach to using information. The students' reflective comments suggested that they developed scholarly understandings about the purposes of a literature review; implications of intellectual property and ethical uses of information; and adopting a critical stance. For example Jon (Ref-09) explained how he progressed from the mechanics of paraphrasing to a deeper understanding of:

The differences between Chinese academic writing style and international academic writing style, which will help me to step forward in writing.

Similarly, learning how to summarise an article gave Ana (Ref-09) a "very fresh way" to organise her ideas and led to a more critical approach to using the literature:

The reading of journal articles seemed torturous and somewhat meaningless to me in the first two weeks. Just during the last part of summary writing ... I realized those hard to read academic works are in fact linked with our teaching and learning experiences and reading

them became meaningful. Since then, on the margins of academic articles, I have marked my thoughts and comments, more than the meaning of new words.

Inclusive

The inclusive characteristic is particularly important for this diverse student group, since it relates to social and cultural awareness, community engagement and shared learning. Students evidently experienced inclusivity through class discussions, team activities and peer feedback, as Ana (Int-09) indicated:

You feel free to tell everything you know and you may feel curious about some certain aspects and you want to involve your personal experiences in the other person's presentation, especially when they [say] something really close connected to your daily teaching life.

Several students reflected that they felt part of a family, when they listened to and helped each other, and shared birthday cakes in class. Sally (Ref-11) appreciated what she called the “free sharing” at the start of each class when they could discuss new discoveries or puzzles relating to their informed learning experiences in Australia. Through this informal communication, Sally found out about the Library’s Study Solutions program. Meanwhile, Penny from India (Ref-11) recalled how a Chinese student’s presentation helped her understand the place of Confucius in Chinese culture.

Inclusivity in this unit seems to be related to a sense of security for students in an unfamiliar educational environment. Dennis (Int-09) felt it was beneficial that:

We can learn in a safe and relaxed atmosphere and whenever we face difficulties we are not scared and we know where we can get help and ... in this way the students are quite motivated to learn this unit.

It also calls attention to the varied emotional dimensions of students’ informed learning experiences. In their reflections, the students variously described feeling “afraid/scared”, “anxious/nervous/worried/stressed”, “confused/puzzled, disappointed”, “ashamed/embarrassed”, “frustrated”, “lost”, “relieved”, “unconfident”, as well as “happy/smiling”, “motivated” and “relieved”. Individuals’ emotions varied according to circumstances, as (Zara, Ref-09) explained:

One power point slide used in the beginning of CLN617 lesson showed 3 different photos. One ... showed a boy puzzled, a second one was an egg smiling and the last one was a bear being frustrated. I didn't expect at the time that I was going to experience exactly the same emotions I saw from the photos.

Negative feelings sometimes inhibited students’ learning. However, their feelings of stress or anxiety often changed as they became more confident through positive learning experiences. In Ian’s (Ref-09) words, “it was not a pain-free experience” but:

The more hours I spent on my paper reading and analysing, the more, unconsciously, my ability of understanding and synthesising improves ... Seeing the progress I have made and the necessary skills I have gained is a relief ... Although we were struggling with subjects, our progress was tangible.

As a positive outcome of such challenges, Martin (Ref-09) felt:

The glow of motivation. The feeling was a mixture of confidence and competence.

Transformative

The transformative nature of informed learning is reflected in several students’ accounts. Jane (Ref-09) referred to the new concepts and practices she learned as “sparkling things” while Connie (Int-09) appreciated that “everything is new and fresh”. Some students focused on specific aspects; for example, Zara (Int-09) became aware that “giving a performance can be a part of teaching” while Jenny (Ref-09) developed a new appreciation for online databases through learning how to use Google Scholar: “How amazing! We can never neglect the magic of the Internet”.

Ian (Ref-09) gradually developed a fresh understanding about the contestable nature of knowledge and the purpose of critical thinking:

I used to have a well founded idea that printed work is always correct, and it is not for somebody at my level to believe otherwise. Looking at works of an established writer and trying to find gaps or neglected areas was an astonishing idea to me. I did not conceive of that before, neither could I visualize myself doing it. Nevertheless, I realize now that nobody is perfect, and all famous theories are based on personal views and experiences. Moreover, I can rarely find a consensus on a theory or belief. The argumentative style between researchers has enriched the literature of every single discipline. It is amazing to me that everything is subjected to questioning. In the western academic world, researchers differentiate between scientific fact and belief.

Meanwhile, Ana (Ref-09) came to understand the relevance of studying theory:

I suddenly realized that some of the teaching approaches mentioned were related to my own experience as a second language learner and later a teacher.

Sometimes a negative incident prompted new understanding. For Zara (Ref-09) the incident was receiving an email with feedback on her literature review. Her comment again illustrates an emotional response to informed learning:

I was not sure what the problem was. I have noticed the problem came from the lack of coherence by e-mail sent by [the lecturer]. "Ah.... Coherence". That was a turning point I take into account when I write an essay as a priority. I was actually happy even though I needed to resubmit it since I found what the problem was and realized how to approach it. I wasn't frustrated, I rather felt good solving the problem that that puzzled me.

Like Zara above, Jane (Ref-09) highlighted that a transformative experience can be emotionally challenging, but ultimately positive:

I had to resubmit my assignment one ... I was so disappointed with my performance ... I still feel ashamed whenever I think of this. Nevertheless, when I calmed down, I told myself to find the reasons for the failure ... Although I have obtained useful knowledge about writing, I did not apply what I have learned to my writing well ... I should have practiced writing skills by myself and negotiated with my lecturer more often whenever I had problems. ... There is a saying: Misfortune may be an actual blessing. To be honest, it is not a good experience for me, but it is a valuable and helpful experience for me.

As Jane indicates, transformative learning implies a change in ways of thinking or doing things, as well as self-understanding.

Occasionally, students reflected on experiences beyond the classroom which informed or changed their thinking about second language learning. For example, Evan (Ref-11) discovered that language learning should include cultural understandings since:

Learning a target language doesn't mean that you are capable of adapting or accepting the culture in target language. In Australia, if you don't talk about sports such as AFL or rugby, it's hard to make friends with the locals.

Some students expressed transformative learning through metaphors and similes. For example, Connie (Ref-0) vividly noted:

The journey of writing a literature review is just like cooking. First of all, the cook has to decide what dish to cook. As a TESOL student, I have to choose a topic based on personal interest. Before cooking, the cook has to get everything sorted out, for example what ingredients will be used in this dish and what flavourings should be prepared beforehand. Similarly, I can't begin writing until I have got sufficient sources and have read enough materials ... After cooking, the cook should reflect on the work he has done to make further improvement and ultimately becomes a master chef.

Indicating the intended informed learning message of this metaphor, Connie commented:

Completing the literature review is not the end of the story, I should also reflect on the achievements I have made during the process of constructing the literature review in order to obtain further insights.

Reflecting forward with informed learning

Reflecting forward from their experiences in the unit, students provided many examples of the transformative characteristic of informed learning and its influence on their future learning and teaching. Some illustrate the principle that informed learning simultaneously promotes learning about disciplinary content and information using process.

Many students indicated their emerging awareness of the importance of information use in their own learning. For example, Jenny (Ref-09) commented that she would continue to develop and apply what she had learned in this unit in her future learning:

I will not stop achieving. I will continue my learning journey to become an informed learner.

Meanwhile, Caitlin (Int-09) recognised the benefit of forming a lifelong learning approach or 'automatic' (independent) learning habit:

Because if you want to get yourself improved you have to establish the habit of learning automatically; no one force you, just yourself want to get improved and you will keep moving on all the time ... never too late to learn.

Jason (Int-09) considered that the confidence he had developed through the unit would enable him in future to "upgrade" his "academic English knowledge" and "to learn, to explore more." This comment highlights the essential relationship in informed learning between disciplinary learning (about language development) and using information to learn. Moreover, for some students informed learning became an object of professional learning in its own right. Thus, Dennis (Ref-09) stated:

The most precious thing I have got from this unit is just this completely new teaching methodology and teaching concept ... part of all these methods I can adopt as a cornerstone of a new foundation in my teaching program upon my return home.

By reflecting on their own learning experiences in this unit, students gained greater understanding about the feelings and needs of their own students. For example, Dennis and Delia both came to realise the importance of creating a conducive learning environment, which Delia (int-09) described as "pleasant and supportive" and Dennis described as "safe and relaxing". Respectively, they believed this would motivate their students, and encourage their active participation and independent learning.

On a practical level, students planned to adopt various teaching strategies experienced during the unit in their future teaching. These included: assisting the students to fully plan and seek information before starting to write an essay; teaching new ways to find useful information including Internet resources; and developing a "reading habit" among students to "arouse their interest to reading and work on the fear of reading" (Caitlin, Int-09); and using metaphors and pictures to stimulate thinking and understanding.

Recognising a beneficial link between second language learning and informed learning from his own experience, Jason (Int-09) commented:

I will encourage my students to explore the authentic English as much as they can, I mean to talk to the English speakers or watch the English movies, listen to BBC or ABC or some authentic conversation, that's also part of informed learning.

After experiencing reflective writing in this unit, many students said they would carry it into their own teaching. For example, Jason (Int-09) explained that he found it:

Really helpful ... give me a reminder so what should I focus on, what should I improve in the future ... [in] my future teaching context ... The ideas ... Why I should use these techniques in my teaching context? And what is the latest technology? What is the latest theory?

Others said they would encourage their students to write reflective learning journals.

Some students considered that informed learning would support their ongoing professional development. Delia (Int-09) suggested it would enhance her practice as an English teacher, by enabling her to both remain current with professional knowledge and reflect on her teaching. Meanwhile, several students, including Jenny (Ref-09) considered that the academic writing approach they had developed in the unit would benefit their career:

Now I have a good knowledge of academic writing... Understanding how to write academically is quite useful for my future learning and teaching As a high school teacher, I need to publish some academic papers of teaching to get the conferment or promotion of academic titles.

Mindful of the nexus between research and teaching, Ian (Ref-09) observed:

This class has helped me not only understand how to be a better teacher but also how to be a better researcher ... learning to work with others is something I have learned in this unit, which I believe is key in any career especially in the teaching field ... the ability to search for a particular information and to discuss these information with my colleagues will help me overcome any potential problems and definitely be a better teacher and a better person.

Taking a global perspective, Caitlin (Int-09) added that her learning in this unit would enable her to keep up professionally with the rest of the world:

The learning in Australia can [be] used all over the world because China has a very different context but I think if I can learn this I can keep up with the date of the world ... I think maybe in the future China will adopt the same thing in our writing, so I think it is urgent to learn this.

Discussion

To date, the Personalised Language Development unit at the heart of this case study has been offered twice in different years. Both times, the students' reflective responses (reported above) and feedback via the university's anonymous Learning Experience Survey were overwhelmingly positive. These evaluative strategies have indicated that informed learning generally became a meaningful concept for the students and led to positive, sometimes transformative, learning outcomes.

Having viewed the experience of informed learning from the international students' perspective, what are the broad messages for educators in different fields?

First, this case study indicates that informed learning can address challenges commonly experienced by international students, including unfamiliarity with Australian academic environment, language and information using practices.

Second, the students' responses draw attention to emotional dimensions of their informed learning experiences, thus resonating with other research that shows international students experience an array of emotions in their transition and learning in their host country (Mehra & Bilal, 2007; Hughes, 2013). The case study outlines an approach for responding to international students' varied emotional responses, by providing a safe and supportive space within the context of their study where they can extend their disciplinary knowledge, linguistic abilities and familiarity with the academic practices.

Third, this case study presents a view of international students as critical, creative and socially engaged informed learners, which contrasts with a focus in some quarters on differences and difficulties of international students (Benzie, 2008). Informed learning embraces learner diversity and emphasises learners' strengths and previous experiences. Thus, by adopting an informed learning approach, educators can create a forum that fosters inclusive learning rather than deficit teaching. The principles and characteristics of informed learning outlined here provide a foundation for further developing curriculum and pedagogy in higher education. The case study demonstrates how this can be achieved

Fourth, in carrying out the case study we identified interesting theoretical and practical links between informed learning and task-based language learning (Nunan, 1999). Both promote a holistic learning approach. Task based language learning assumes an active engagement in communication, which promotes “a contextual view of language” and authentic language use. Similar to informed learning, it is underpinned by a belief that “learners learn best if the content relates to their own experience and knowledge” and that “learners who have developed skills in “learning how to learn” are the most effective students” (Nunan, 1999, p. 90). Moreover, the task based approach encourages language learners to draw on a wide variety of real-life information sources including broadcast media, meetings and printed materials; and it enables them to develop a range of language learning strategies and to continue applying them outside the classroom. This contrasts with traditional language teaching methods that focus on skills and rules of grammar, vocabulary and pronunciation, in the same way that informed learning contrasts with skills-based information literacy instruction that focuses on discrete skills and tools. Drawing a direct connection between using information and language learning Nunan (1999, p. 71) states:

It is only through language that we can communicate with each other, share our ideas, tell people what we have experienced, express our wishes and desires, solve complex problems by drawing on information we read or hear, and above all communicate in the workplace and across cultures with people from other countries. To achieve these objectives, however, we need to learn language as communication, not just as a list of facts to be memorized or a set of symbols to be manipulated.

The evident synergy between informed learning and task-based language learning warrants further investigation.

Conclusion

In exploring international students’ experiences of informed learning in a Master of TESOL/TEFL unit, this paper has addressed challenges often encountered by learners in culturally diverse higher education. As the case study shows, the international students responded positively to the concept of informed learning and its practical application in the Personalised Language Development unit. On a conceptual level, they developed understanding of the essential link between disciplinary learning and information use in informed learning. On a practical level, they developed new disciplinary knowledge relating to second language learning and teaching, as well as a critical, creative, ethical and reflective approach for using information to learn in the Australian academic context.

While informed learning is a still evolving pedagogical construct, the seamless way in which the principles and characteristics of informed learning were integrated into the design of the Personalised Language Development unit demonstrates the inherent flexibility of this pedagogical approach. The principles and characteristics of informed learning presented here are transferable and could support further development of curriculum and pedagogy across disciplines in higher education.

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