

Paradigm shift from student to researcher: An academic preparation program for international students

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Although there are many Academic Preparation Programs designed for international postgraduate students, the importance of establishing “the role of the researcher” is rarely the focus of these programs. This role is a fundamental “threshold concept” (Meyer & Land, 2006) for postgraduate success which has the potential to be transformational at both Masters and PhD levels. This paper reports on an intensive academic preparation program (IAPP) for international postgraduate students commencing study at UNSW in 2009. This pilot program consisted of 40 hours facilitation prior to commencement of Semester 1, 2009. The program aimed to explore the “role of the researcher” by engaging in academic literacies fundamental to postgraduate expectations and empowering each student by acknowledging they were budding specialists in their disciplinary field.

The design of the program encouraged personal responsibility for research and learning. This gave learners confidence to explore their reflective and critical learning process and to fine tune their research interests. Learning activities were designed to foster and record reflective practice. The use of a learning journal, group discussions and debriefings were central to the program and increased learners’ confidence as researchers.

Student feedback of this pilot program was very positive and demonstrated its transformational nature. Based on this experience, we suggest that developing the “role of the researcher” offers another direction to consider when designing international preparation programs.

Key Words: Academic literacies, threshold concepts, international students, student engagement, reflective learning, empowerment.

1. Introduction

International multilingual postgraduate students are an increasingly important cohort within the higher education sector. This recognition has led to an ongoing conversation in the literature which explores how best to assist these learners on their postgraduate journey (Starfield, forthcoming). The different approaches include: the development of academic writing processes

in a second language (Paltridge & Starfield, 2007), effective supervision and relationships between supervisors and candidates (Denholm & Evans, 2007) and also the process of enculturation (Casanave & Li, 2008). These approaches recognise and inform a direction for transition programs and more specifically for course preparation programs designed for international, multilingual postgraduate students. The recognition of a transition phase in the current dialogue puts the learning advisor as a joint partner in the positive transition “moment” (further discussed in section 2.2) for the learners. This is in contrast to many approaches where transition is regarded as a “gap filler” and follows a deficit model which assumes learners lack certain knowledge and skills to perform successfully (Lea & Street, 2000). In many such cases, the transition program takes a study skills approach where various skills (such as structuring an essay and giving presentations) are explicitly taught to the students with little recognition of students’ prior learning or abilities (Lea & Street, 2000). An alternative perspective is to develop in the learners an awareness of the prior knowledge and skills they bring to their postgraduate study in Australia. This awareness enables the learner to take their place within their community of practice (Wenger, 2008).

This paper will discuss an alternative approach to a traditional generic academic skills based preparation program. We claim that our “Gateway Approach” potentially positions the learner and the learning advisor at the beginning of the postgraduate journey by focusing on facilitating reflection and the postgraduate’s role as a researcher, using an academic literacy framework (Lea & Street, 2000).

At the University of New South Wales (UNSW), one strategy to assist in the transition to postgraduate studies has been for the Learning Advisors from the Learning Centre to provide a three week pre-course preparation program, the Academic Preparation Program (APP), for International students on Australian Government Scholarships. Alongside the successful and ongoing APP, an alternative intensive program was developed in 2009 for international postgraduate students who came to the University on pathways other than Australian Government Scholarships, to ensure their transitional support. The Intensive Academic Preparation Program (IAPP) presented a unique opportunity to pilot a two week (20 hours per week) intensive program to address the needs of this culturally and linguistically diverse (CALD) group who represented a variety of disciplines and entry levels. Of the six students who completed the course, only one was a postgraduate coursework student; all the others were postgraduate research students.

2. Theoretical perspectives on adaptation to Higher Education

This section of the paper discusses a range of theoretical concepts and how they relate to the Gateway Approach. International learners often enter an academic environment of unfamiliar social and educational behaviours and expectations. The Gateway Approach provides an orientation and enculturation as discussed in the ABC domain of learning developed by Zhou, Jindal-Snape, Topping, and Todman (2008). This learning domain integrates Affect (that is, appropriate affective strategies and techniques) to maximise adjustment; Behaviour, which embraces new academic expectations and social interactions; and Cognition, which emphasises “inter-group similarities rather than differences” as well as a respectful sharing of ideas and practices between facilitators and the learner, and among learners (Zhou et al., 2008, p. 5). The Gateway Approach places international learners as active participants in the process of adaptation (Zhou et al., 2008) and provides tools for thinking about their adjustment. It also empowers them with a range of potential strategies. The philosophical underpinning of this approach is that learners construct their ongoing sense of self by integrating their prior learning and life experiences with their current learning. The importance of integrating prior learning has long been recognised. In fact Biggs (1999) suggests that all other contextual factors are secondary to the acknowledgement and understanding of prior learning.

2.1. The voice and identity of the learner

The Gateway Approach recognises the importance of developing the learner's voice and identity as a writer (Ivanic, 1998). This key aspect of postgraduate writing was a significant component of the IAPP. Developing the learner's voice in part grows from acknowledging their previous learning. It was important to acknowledge that learners come to postgraduate study with multiple voices already developed either within an English academic writing tradition or within other writing traditions (Hirvela & Belcher, 2001). The integration of prior learning into the learners' new learning context encouraged discussion of voices and how they might further develop them. Bowden's (1999) description of voice "as a metaphor ... to do with feeling, hearing, sensing a person behind the written words, even if that person is just a persona created for a particular text or a certain reading" (as cited in Hirvela & Belcher, 2001, p. 85) highlights for learners the potential complexity of obtaining an appropriate voice for their studies. As the learners were already successful students in their first language, the IAPP thus provided an opportunity to begin the transition from one learning identity to another through the exploration of extending and adapting the learners' existing academic voices. Promoting the development of voice can be seen "as an analytical tool" (Hirvela & Belcher, 2001, p. 104) and a gateway into both the learner's critical and reflective identities. Exploration of voice and identity of the researcher through the lens of threshold concepts may be helpful, particularly in the transitional phase to postgraduate study, although Hirvela and Belcher (2001) note that for some learners the complexities of the concept of voice may be problematic.

2.2. Threshold concepts

The shift from learner to researcher may require a major conceptual shift for some learners, and thus adopting the role of the researcher may well be a significant threshold concept for learners commencing postgraduate work (Kiley, 2007; Kiley & Wisker, 2009). Threshold concepts are significant concepts within a discipline which are abstract, pivotal ideas and part of the essence of the discipline (Meyer & Land, 2003, 2006). They "can be considered as akin to a portal, opening up a new and previously inaccessible way of thinking about something" (Meyer & Land, 2003, p. 1). The acquisition of threshold concepts can be a time-consuming and arduous process, requiring significant adjustments to thinking and doing. Over time however, the persevering learner experiences new and relevant insights (Meyer & Land, 2006) in relation to their discipline; when a breakthrough occurs a new "conceptual space opens up" and a conceptual transformation occurs (Meyer & Land, 2005, p. 374). The irreversible and integrative nature of threshold concepts impacts on the transformation of identity which occurs due to the changing perceptions learners have of themselves as a result of undertaking a research degree (Kiley, 2007; Kiley & Wisker, 2009). The Gateway Approach recognises the work of Meyer, Shanahan, and Laugksch (2005) who suggest that learners are most vulnerable in the early stages of their research, especially in regard to their approach to their research. Furthermore, Kiley (2007) suggests that perhaps the whole process of researching is, for learners, one continuous threshold concept. The Gateway Approach, as its name suggests, recognises the beginning of the journey, or the transition "moment", when the learners start to see themselves as novice researchers. It is this "moment" that begins their personal transition process. The learners' recognition of this paradigm shift is reflected in the title of the paper and came from several comments by the students in the IAPP. The implications of this continuing process are the need for the provision not only of transitional support, but also of ongoing academic literacy support, supervisor support, other metalearning support, (Kiley & Wisker, 2009), supervisor vigilance and having a range of strategies available to learners throughout their postgraduate study (see also Paltridge & Starfield, 2007).

2.3. Reflective Practice

Reflective practice potentially enables "deep and significant learning" (Brockbank & McGill, 2007, p. 85). In our innovative approach, reflective practice is fundamental to this threshold concept and is made possible by exploring personal experiences which create new understandings and perceptions (Boud, Kough, & Walker, 1985). Reflective practice requires attentiveness

to two key areas: reflection in action and reflection on action (Brockbank & McGill, 2007; Boud, 2001). Reflection in action (first described by Schon, 1983) is a heightened awareness of one's actions while in the process of undertaking a task, whereas reflection on action is a reflection after an event to discover the significant aspects of a task and attending to the feelings associated with the task. The outcomes of effective reflection on action, which can be either an individual or a group insight, may lead to small changes in practice or produce paradigm shifts. Reflection on Zhou et al.'s (2008) ABC domains (Affect, Behavior, Cognition) of learning can become an effective learning strategy.

2.4. Communities of Practice

The Gateway Approach acknowledges the social aspect of "communities of practice" (Wenger, 1998, 2008). Since learning is a social journey as well as a personal endeavour, transition programs need to highlight that the integration of these two modes enhances the research process for learners. The Gateway Approach was based on the threshold concept of the role of the researcher and although the learners represented a wide range of discipline areas, their shared interest was in taking on the role of the researcher. This method encouraged learners to adopt critical and reflective approaches to the stimulus materials and at the same time encouraged collaborative interaction among learners to achieve a shared goal. These activities demonstrated the power of the group to share and create knowledge which can provide rich new insights for the learner (Wenger, 1998).

Participants in the IAPP were generally optimistic about the academic postgraduate journey they were beginning. The intensive program aimed firstly to maintain that positive attitude, and then to provide them with confidence and to empower them to take intellectual risks in exploring their disciplines (Dawson & Conti-Bekkers, 2002).

3. Description of the Gateway Approach

When we were developing the Gateway Approach, we used a two-stage action research model (Altrichter, Kemmis, McTaggart, & Zuber-Skerrit, 2002). Cycle 1 emerged from numerous iterations of the planning process, reflecting and re-adjusting the program in the weeks prior to the commencement of the program. Cycle 2 occurred during the program and included the implementation, daily evaluation, reflection on our evaluation of taught modules recorded in our journals, and refinement of the program in response to learner feedback. The process of reflection was fundamental to the Gateway Approach.

The workshop stimulus materials were a range of academic texts related to research and the identities within the role of a researcher: the postgraduate, the reflective learner, the author and the audience. These four themes were explored from the perspective of thinking about research, reading for research, research writing, and presenting research, all of which were considered to be essential for the post graduate journey. An iterative process was utilised for each of the two hour modules: workshopping the academic literacy stimulus materials; use of trigger questions related to the topic to stimulate discussion; personal reflective writing and finally sharing of reflections.

A reflective approach in the workshop setting enabled learners to explore their new role as researchers and gave them an opportunity to integrate their prior learning into their new learning environment. A blank notebook was used as a learning journal which provided a clean canvas for the recording of the exploration of their learning, both in a directed (workshop) and self directed (out of class) environment. Learners were asked to record in their journals the value of each day's modules in relation to their current academic practices and research. Each day began with a reflective review of their thoughts from the previous day which was foundational to their next learning experience. There was no prescribed format, nor was the layout imposed; however four stimulus questions acted as a springboard for reflective and critical processing of their research topics. The reflective stimulus questions were:

1. What have I learned from this experience?

2. How does this “fit” with my previous learning?
3. How does this learning impact on my understanding?
4. What do I need to know/do next?

These questions were used as a foundational framework for enquiry in each academic literacy module and the independent learning activities for the duration of the program. Learners and facilitators completed their journal reflections at the same time. The facilitators’ journal writing provided an opportunity to model the process of journal writing. Learners were also encouraged to record any additional insights in their own time.

A library session familiarised learners with the databases relevant to their disciplines and gave them a guided opportunity to locate journal articles which could be reviewed for their IAPP assignments. The set assignments were an oral presentation related to their discipline area, two annotated bibliographies based on journal articles related to the learner’s field of study, and their learning journal. In the first week, learners completed an annotated bibliography in class and were given formative feedback in addition to participating in a practice peer review session prior to final submission of the annotated bibliographies.

4. Discussion and evaluation of the Gateway Approach

Facilitators’ observations and discussions, student evaluation, and a follow up survey indicate that the Gateway Approach effectively started learners on their journey as researchers. Key indicators of this effectiveness were that learners demonstrated and reported understanding the metacognitive process of the role of researcher; they were successful in integrating current and prior learning experiences, and reported on the transformative nature of the program.

4.1. “Talking the talk”

Evaluating the success of the Gateway Approach was not only based on the written competencies of the students, but more importantly on the way they spoke about their learning: “Talking the talk”. Learners provided both written and oral evaluative feedback. The feedback demonstrated that all of the students felt the program was very effective and had met their expectations. The majority felt the program had significantly improved their ability to engage with their postgraduate studies. In particular, the learning journal proved to be an empowering tool for understanding the metacognitive processes of being a researcher. The learning journal was seen as a tool for “*making new connections*” and learners experienced the “*magic effects of writing*” which allowed another learner to “*flesh out ideas*”. Several others said journal writing produced “*new insights*” ([it was like] “*giving birth to something*”) or was a “*tool to record my thinking*”. These insights indicate that journal writing had provided an opportunity for learners to integrate both their current and prior learning experiences into new learning (Boud, 2001). Not only were the learners identifying the experience of new conceptual spaces opening up (Meyer & Land, 2005), their comments suggest that they were actively engaged with their learning.

The Gateway Approach impacted on many facets of the student’s learning and elicited a broad range of responses related to academic literacies such as: *communication and teamwork, writing, oral presentations and critical thinking* which indicate that learners were aware of the generic capabilities needed for successful research (Wissler, 2007). The feedback also identified engagement with specific aspects of the Gateway Approach: “*practicing the tools we have learnt in classes*” and “*The learning journal is, I think the best tool I have grabbed from this course that actually helps me think deeper and more critically*”.

Learners also identified a range of ways their enculturation into academic research had been enhanced. The class materials and tasks “*serve as a guide for us*” for research and were valued by both those “*new to the western academic system*” and “*old learners*” who had had previous experience within the Australian educational system. Responses indicated that they felt engaged and informed: “[the tasks] *set me thinking*” and “*in many cases the teachers act as a trigger and students find what they need to know*” to succeed in postgraduate research. The program

materials were seen to stimulate thinking about *“the research skills I should work on”* and provided information to get started on the *“literature review and how I am to develop my critical thinking process”*. In general, these comments suggest that the respondents had not only identified the skills valued in research, but had adopted the identity and ownership of that role as active participants in the research process. Conceptually they had a framework from which to explore research and to begin a conversation with their supervisors.

Most significantly, learners reported on the transformative/transformational nature of the Gateway Approach. One learner commented that the program led to her experiencing *“a paradigm shift”* from student to researcher and for others the program had encouraged *“new ways of thinking”* and *“a new approach never experienced before”*. A learner used the metaphor of a bird in a cage to describe her feelings of expected restrictions imposed by the research process. As a result of participating in the approach, she felt liberated to explore her research topic since she now had a better appreciation of the process. Most learners observed that they had gained new and relevant insights (Myer & Land, 2003) into possible approaches to research. One learner reported the most useful part of the program was the realization that writing was pivotal to success as a researcher: *“I’ve never realized the importance of continuously improving my writing”*. The learners’ adoption of the role of the researcher as a threshold concept provided a gateway to their post graduate community of practice.

4.2. “Walking the walk”: six month follow-up

The Gateway Approach was seen as a portal into the learners’ postgraduate experience. We wanted to investigate how the learners saw themselves after six months engagement in their research: “walking the walk”. A follow-up survey was emailed at the end of the semester 1, 2009. All the enrolled students responded, indicating they felt secure in their roles as postgraduate researchers and they reported on the attainment of personal skills. They articulated with confidence the critical skills they explored in the IAPP that they were now applying to their learning contexts: [It] *“gave me the skill to question everything I come across. It is by answering these questions that I am able to get an in-depth knowledge which is what postgraduate studies is about”*. Another responded, *“It’s a rewarding yet a tough position that requires a lot of critical thinking”*.

Others reported on a wider perspective, valuing personal learning within a social context. One wrote being a postgraduate *“means a lot more than reading and examination of knowledge in my narrow niche, also teamwork, communication with people in my field, building up networks and managing myself and my supervisor”*; another student responded, *“It enables me to understand the expectations for a postgraduate and better prepares me as a researcher with the awareness to implement critical thinking skills and to learn from various channels like colleagues, classmates and to be more proactive”*. These comments reflect an emergent sense of belonging to a research community. It was also evident from these responses that the learners are aware that their role is complex and challenging, yet they expressed a sense of purpose and ownership of their research.

It was apparent that academic literacies were embedded in their research. Improved study strategies were mentioned, in particular *“note-making”*, *“critical thinking”*, *“question initiated reading”* and *“knowing how to learn”*. At this stage of their studies it is clear that their reading is focused and they are questioning critically what they are reading (Ingleby, 2007). All learners commented on *“the importance of writing regularly”* and the need to *“write constantly”*. *“I have gained a lot of confidence in writing technical and academic papers. However I have found out that reflective writing is fundamental because it gives the inspiration for good technical/academic writing”*. Another learner focussed on the discipline of writing regularly, quite obviously without much enjoyment: *“I push myself to write something every week ... and seldom complain about the writing assignments in daily life as I’ve learnt to treat them as an excellent writing opportunity”*. This range of positive and less enthusiastic comments indicates that learners are nevertheless taking a disciplined approach to writing and that they are using

writing as a tool to “construct their own thoughts and interpretations” (Carter, Ferzli, & Wiebe, 2007, p. 293).

At the end of IAPP, the learners were hopeful that they could maintain the discipline of writing a journal to document their reflective practice. This seems to have dropped off the agenda for some learners. One poignantly commented:

IAPP emphasised a lot on reflective learning by the means of the learning journal. I haven't worked much on that though; still I keep thinking back how I was doing and check whether I've made things happen towards my expected goals. This helps me make sure I am still on the track.

After six months it appears that the Gateway Approach has empowered the learners not only to “talk the talk” but to “walk the walk”.

4.3. Limitations

While the program has been well received, we are mindful that several factors have influenced its success. Firstly, the very small cohort and the positive dynamics of the group created an exceptionally constructive learning environment. Another contributing factor to the success of the program was that the planners of the program taught all but one session. Both have had extensive teaching experience at postgraduate level and so were aware of a practical starting point for postgraduate researchers and maintained a focus on the role of the researcher. Consequently, the motivation and enthusiasm were high and the synergy between facilitators and learners provided optimal learning. In future programs with a larger cohort of students or a change in staffing arrangements, the dynamics may not be as cohesive nor the learning environment as positive.

5. Conclusion

The IAPP began the process for learners to explore their academic research culture. The purpose of the Gateway Approach was to set up a successful and positive transition “moment” for international postgraduate students by introducing them to the culture of teaching and learning at UNSW. The threshold concept of “the role of the researcher” was used to explore academic literacies and the development of the learner’s voice as a critical and reflective identity. From the outset, the learner was positioned both as a novice researcher and as an active co-constructor of that role. By the end of the semester, learners were beginning to speak as members of their research community and had adopted the role of the researcher. They also expressed confidence in their personal development within their community of practice. We will continue to monitor the experiences and the academic development of our inaugural group of IAPP learners as they progress through their courses. It is also anticipated that the IAPP will be conducted again in 2010. A larger cohort of international postgraduate students will allow confirmation of the validity of the Gateway Approach in transitional programs. The complexity of supporting the international cohort is reflected in some of their comments. The IAPP was focussed in this transition on academic literacies; however, the learners suggested that the program be extended to include additional topics such as “*academic conferences*”, “*communication with supervisors*” and “*writing a complete thesis*”. These comments demonstrate the challenge of the multifaceted support required for the international, postgraduate, multilingual cohort. These aspects of their postgraduate experience are beyond the parameters of a transition program; however, they should be considered by the learners’ community of practice. We expect that these students will continue to explore and expand their threshold concept of the role of the researcher as they move from novice to expert.

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Reference List

- Altrichter, H., Kemmis, S., McTaggart, R., & Zuber-Skerrit, O. (2002). The concept of action research. *The learning organization*, 9(3), 125-131.
- Biggs, J. B. (1999). *Teaching for quality learning at university*. Buckingham: Open University Press.
- Boud, D. (2001). Using journal writing to enhance reflective practice. *New directions for Adult and Continuing Education*, 90 (Summer), 9-17.
- Boud, D., Kough, R., & Walker, D. (1985). Promoting reflection in learning: a model. In D. Boud, R. Keogh, & D. Walker (Eds.). *Reflection: turning experience into learning* (pp. 18-40). London: Kogan Page.
- Brockbank, A., & McGill, I. (2007). *Facilitating reflective learning in higher education* (2nd ed.). Berkshire, England: Open University Press.
- Carter, M., Ferzli, M., & Wiebe, E. (2007). Writing to learn by learning to write in the disciplines. *Journal of Business and Technical Communication*, 21, 278-291.
- Casanave, C., and Li, X. (2008). *Learning the literacy practices of graduate school: Insiders' reflections on academic enculturation*. Ann Arbor: Michigan University Press.
- Dawson, J., & Conti-Bekkers, C. (2002). Supporting international students' transition to university. *Proceedings of the Learning and Teaching Forum 2002*. Retrieved April 7, 2009, from www.ecu.edu.au/conferences/tlf/2002/pub/docs/Dawson.pdf
- Denholm, C., & Evans, T. (Eds.) (2007). *Supervising doctorates downunder: Keys to effective supervision in Australia and New Zealand*. Camberwell, Vic: ACER Press.
- Hirvela, A., & Belcher, D. (2001). Coming back to voice: The multiple voices and identities of mature multilingual writers. *Journal of Second Language Writing*, 10, 83-106.
- Ingleby, R. (2007). Helping candidates form their research question. In C. Denholm & T. Evans (Eds.). *Supervising doctorates downunder*. Camberwell, Vic: ACER Press.
- Ivanic, R. (1998). *Writing and identity: The discursive construction of identity in academic writing*. Amsterdam: John Benjamins.
- Kiley, M. (2007). Thinking like a researcher. In C. Denholm & T. Evans (Eds.). *Supervising doctorates downunder*. Camberwell, Vic: ACER Press.
- Kiley, M., & Wisker, G. (2009). Threshold concepts in research education and evidence of threshold crossing. *Higher Education Research & Development*, 28(4), 431-441.
- Lea, M., & Street, B. (2000). Student writing and staff feedback in higher education: An academic literacies approach. In M. Lea & B. Stierer (Eds). *Student writing in higher education: new contexts* (pp. 32-46). Buckingham SRHE and Open University Press.
- Meyer, J., & Land, R. (2003). Threshold concepts and troublesome knowledge: Linkages to ways of thinking and practising. In C. Rust (Ed.). *Improved student learning: theory and practice ten years on*. Oxford: OCSLD.
- Meyer, J., & Land, R. (2005). Threshold concepts and troublesome knowledge (2): Epistemological considerations and a conceptual framework for teaching and learning. *Higher Education*, 49, 373-388.
- Meyer, J., & Land, R. (Eds.) (2006). *Overcoming barriers to student understanding: threshold concepts and troublesome knowledge*. New York: Routledge.
- Meyer, J., Shanahan, M., & Laugksch, R. (2005). Students' conceptions of research: A qualitative and quantitative analysis. *Scandinavian Journal of Educational Research*, 49(3), 225-244.
- Paltridge, B., & Starfield, S. (2007). *Thesis and dissertation writing in a second language: A handbook for supervisors*. London: Routledge.
- Schon, D. (1983). *The reflective practitioner: How professionals think in action*. London: Basic Books.

- Starfield, S. (forthcoming). Teaching academic writing in EMI universities: Engaging with the disciplines. In C. Davison & N. Bruce (Eds.). *Language issues in English-medium universities across Asia*. Hong Kong: Hong Kong University Press.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. New York: Cambridge University.
- Wenger, E. (2008). Communities of learning: A social discipline of learning. *Proceedings of HERDSA Conference, 2008 1-4 July Millennium Hotel Rotorua NZ*. Retrieved May 2, 2009 from http://conference.herdsa.org.au/2008/pdfs/communities_of_practice.pdf
- Wissler, R. (2007). Focussing on generic capabilities. In C. Denholm & T. Evans (Eds.). *Supervising doctorates downunder*. Camberwell, Vic: ACER Press.
- Zhou, Y., Jindal-Snape, D., Topping, K., & Todman, J. (2008). Theoretical models of culture shock and adaptation in international students in higher education. *Studies in Higher Education*, 33(1), 63-75. Retrieved from: www.informaworld.com/smpp/section?content=a789348998&fulltext=7132409