Embedding Academic Literacy Skills: Towards a Best Practice Model

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Abstract
Learning advisors provide academic literacy development support in a variety of configurations, ranging from one-on-one consultations through to large-scale lectures. Such lectures can be generic, stand-alone modules or embedded within a discipline-specific course. Pragmatic and institutional considerations suggest that a generic model of delivery often has an effective role to play; however, there are strong pedagogical arguments for adopting an embedded approach wherever possible. The practice of embedding literacy interventions within subject papers is time-consuming and often logistically challenging; therefore, in order to help learning advisors, their managers and academic staff in faculties to consider the issues, options and constraints in a systematic manner, this paper proposes a best-practice model drawing from over two decades of literature and the authors’ practical experience over the same period in New Zealand and overseas. In order to elucidate the model, the paper critiques an embedded academic literacy skills programme facilitated by an interdisciplinary studies unit at Auckland University of Technology (AUT), New Zealand. The programme is embedded in a core paper entitled Knowledge, Enquiry and Communication (KEC) which is a prerequisite for entry into all of the Health Science programmes. As well as describing key features which have contributed to the success of the programme, the authors identify several key factors which need to be taken into account when considering embedded academic literacy initiatives

Keywords
academic literacies, best practice model, critical pragmatic approach, embedded language and learning skills, faculty collaboration, student success and retention

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1. Introduction

The concept of academic literacy is far from straightforward. Henderson and Hirst (2007) note that the term “tends to hide any of the diversity that exists, thus restricting us to a singular view of literacy and a particular set of practices” (p. 27). When academic literacy is considered in the plural – as academic literacies – and these literacies are viewed as sets of practice, the focus shifts towards ways in which students learn to participate and make meaning within an academic context (Lea 2004). Academic literacies include critical thinking, database searching, familiarity with academic conventions such as referencing, use of formal register and the ability to manipulate a range of academic genres, which by definition restrict how meanings can be constructed and conveyed. The concept of multiliteracies is assuming greater importance in tandem with developments in technology. (See, for example, Kalantzis and Cope 2012). One of the most effective means of supporting students in developing academic literacies is through embedding academic writing programs in faculty courses. Embedding academic-writing interventions in subject disciplines is a practical way of helping students make explicit connections between the discourse variables of their subject and the particular demands of a given assignment.

This topic is of interest because it addresses a key issue relating to student success and retention, particularly with respect to undergraduate students in Aotearoa, New Zealand, who in many cases come from non-mainstream backgrounds. Included in this group are international students, predominantly from Asian and Pasifika countries, but also including Europe, Africa and South America; Māori students, many of whom are the first in their family to attend university; and mature students who are returning to academic study. Discipline-specific academic literacies are frequently taken for granted by individual lecturers and sometimes, by entire departments. Learning advisors frequently make this observation in debriefing discussions, and it is also borne out by research into institution-wide attitudes towards learning advisors; see, for example, Turner (2004) and Hocking and Fieldhouse (2011). The corollary is that students who find themselves lacking skills or confidence do not always receive the targeted literacy support which they need, and as a result, steadily lose motivation; in some cases they are inclined to opt out of academia without completing their course. Institutional responses to students not completing vary in structure and efficacy. A typical approach is for an institution to offer a series of short workshops focusing on generic core skills considered to be transferable to all subjects at tertiary level. For further discussion and critique of a generic approach, see Allan (2012). This paper will argue that in preference to a generic approach, students are more likely to benefit from receiving a carefully paced program of instruction in academic literacies, embedded within a discipline-specific course.

The paper starts by presenting the theoretical rationale for embedding, having considered similar approaches in a range of tertiary institutions. The next section surveys the literature over the last two decades and identifies five salient themes, which are then drawn on in outlining a proposed best-practice model. To provide a context for exploring these themes and applying the model, the fourth section outlines the range of embedded approaches at one New Zealand university, and takes as a case study one particular embedded literacy intervention. The Knowledge, Enquiry and Communication (KEC) course is a foundation-level course at AUT University in Auckland. This course provides an introduction to research methods in which students are taken through the basic principles of formulating an enquiry question and conducting a (modified) literature review. KEC
is designed to support health-science students in the first semester before they enter their particular discipline. Having outlined the KEC course, the following section elaborates on key features of the embedded academic-writing skills intervention, which is administered by a dedicated learning support unit, the Student Learning Centre: Te Puna Aronui (SLC). This paper concludes with an evaluation of the literacy intervention and offers some practical suggestions for colleagues interested in implementing embedded interventions in learning centres in other institutions.

2. Theoretical Rationale

Before examining the literature, it may be useful to consider the theoretical background that has contributed to the evolution of the academic literacy practices evident today in English-medium universities worldwide. A number of commentators have alluded to the widespread practice of merely assessing student writing, as opposed to empowering students with core academic literacy attributes; see, for example, Ganobcsik-Williams (2006). In the interests of developing student autonomy, AUT’s learning advisors subscribe to a heutagogical approach: our explicit aim is to sensitisise students to the discourse specifics of their discipline. In the teaching context this paper describes, a critical pragmatic approach has been taken with respect to teaching academic literacies. This approach has been developed with careful consideration of the different pedagogical tenets which inform teaching acts. Knoblauch and Matsuda (2008) identify five key approaches that have contributed to embedded academic-literacy initiatives. These methodologies incorporate elements of current and traditional rhetoric, process approaches, critical pedagogies, cultural studies and pragmatic pedagogies. This range of pedagogical approaches is influenced by a number of factors within tertiary institutions; for example, university policies, individual politics and beliefs and the students themselves. It appears that significant benefits accrue to students through combining the two paradigms of critical pedagogy and pragmatic skill development (Harwood & Hadley 2004; Hyland 2006). This critical, pragmatic approach develops critical-thinking skills, while at the same time exposing students to the intended conventions and discourses of their discipline. It is widely accepted that there is a clear link between effective critical-thinking skills and competent academic writing (Catterall & Ireland 2010; Wingate, Andon & Cogo 2011). The success of a critical pragmatic approach, however, is clearly dependent on the context, or the circumstances, of a particular program. Catterall and Ireland (2010) suggest that while pragmatic concerns ground the content and design, critical pedagogy is still a key consideration.

3. Literature Review

Over the last 20 years, both in Australasia and further afield, a large body of literature has emerged that focuses on the embedding of academic writing development skills in, or adjunct to, faculty or subject programs in tertiary institutions. The research has largely been in agreement about the benefits of such initiatives (Hill, Tinker & Catterall 2010; Leach, Zepke & Haworth 2010; Salamonson, Koch, Weaver, Everett & Jackson 2009). These benefits will be discussed under five headings: the necessity for institution-wide support for embedding academic literacy skills; the importance of cooperation and collaboration between discipline lecturers and academic specialists; the rejection of a remedial approach to academic-literacy skill learning support in favour of a “guidance” approach; a multiple-approaches philosophy when developing academic literacies; and, finally, the relevance of a student-centred or autonomous-learner focus in embedded literacy.
initiatives.

3.1 Institutional Support

Institutional recognition of the important role and unique contribution that literacy specialists provide is a key contributing factor to the effective provision of embedded literacy initiatives (Leach et al. 2010; Pocock 2010). Indeed, Hirst, Henderson, Allan, Bode and Kocatepe (2004) suggest that supporting the development of academic literacies across disciplines should receive the same level of support as that given to all other subjects across the curriculum. However, institutional understanding of the intrinsic relationship between writing, learning and communities of practice within disciplines cannot be guaranteed. Strauss (2013) reports feedback from learning advisors working in a representative range of NZ universities indicating that while, for the most part, management is supportive, in other cases, management is merely “indifferent”. In extreme cases, management evinces a lack of awareness of the specific nature of learning advising; some “unfortunate few” colleagues in a recent nation-wide research project explained that they “answered to administrative staff who had no understanding of the challenges of teaching”.

Institutional understanding is often constrained by economic priorities. Managers are preoccupied with limited budgets; teachers are preoccupied with their students’ needs; and the two groups can often be seen to be talking past each other, especially where managers do not understand the pedagogic principles underlying learning advisors’ work. Clerehan (2007) discusses competing discourses and the prevalence of “managerialism” from an Australian perspective. Kennelly, Maldoni and Davies (2010) argue that if tertiary institutions accept domestic or international EAL students who have weaker academic-literacy proficiency, those institutions are then obliged to provide them with appropriate, focussed support. If institutions claim to be the “university of choice” for equity groups, then appropriate academic literacy support should be a priority. Unfortunately, however, academic literacy support is not always accorded high priority; as Strauss (2013) observes, in many institutions in Australasia and beyond, learning development is seen as a “quick fix” student service, rather than as a more pedagogically grounded approach which focusses on developing academic literacies. Other commentators have noted the marginalised status of the language-development work done by student learning centres, noting, for example, their location “on the periphery of higher education” (Turner 2011 p. 29).

The literature reveals a growing concern with generalised approaches to learning support that seem to suit the new managerial model, characterised by a certain mindset where students are seen as customers who can be “advised” on a range of services that are measurable but bear little resemblance to the fundamental understanding concerning teaching and learning pedagogy. Clerehan (2007) argues that while literacy specialists may advise in the course of their work, what they are actually engaged in is teaching, and that the nature of this teaching will vary in focus and emphasis depending on the level of the course, the text type and the subject; this focus on teaching is further explored by Chanock (2007) and Creswell and Bartlett (2002). Purser, Skillen, Deane, Donohue and Peake (2008) expand on the teaching focus with an emphasis on helping students understand and apply the particular discourses of their discipline, giving primary consideration to the complexity of embedded literacy initiatives.

Whilst the literature acknowledges institutional, logistical and financial constraints, it is, nonetheless, in agreement that there needs to be institutional support for embedding literacy within courses (Leach et al. 2010; Peacock 2008).
3.2 Cooperation and Collaboration

A number of studies have reported on the effectiveness of collaboration between subject lecturers and literacy specialists, and consider these relationships to be invaluable for the ongoing success of embedded academic-literacy initiatives (Chanock 2007; Durkin & Main 2002; Jacobs 2005; Salamonson et al. 2009; Thies 2012). In their Australian study, Einfalt and Turley (2009) report on an encouraging model that describes a three-way intervention between the subject lecturer, the skills advisor and the librarian. Their findings demonstrate how this initiative emphasises the link between writing and course content for students, and how better relationships between academic colleagues can be fostered. Furthermore, in their UK study, Hill et al. (2010) describe an effective devolved model where writing specialists work with lecturers in schools using an integrated and flexible approach. Closer to home, Pocock (2010), in her timely critique, suggests that whilst not without its challenges relating to time, energy and persistence, collaboration between discipline lecturers and literacy specialists enriches student learning and fosters the belief that learning development has relevance for all stages of the student’s journey. Also, Manalo, Marshall and Fraser (2009) have recently compiled a report detailing initiatives in New Zealand tertiary institutions that highlight the value and contribution of collaboration between discipline lecturers and academic-literacy specialists in a number of different settings. The value of this more-collaborative approach fits well with the next important theme, which is the significance of the developmental model of learning development over the “fix it” model of learning support.

3.3 A Guidance-Over-Remedial Approach

Several studies have focussed on an important distinction between guidance and remediation (Allan & Clarke 2007; Chanock, D’Cruz & Bisset 2009; Pocock 2010; Wingate 2006). Adopting a guidance approach clearly suggests that working with students on their writing tends to have a strong developmental focus. Unfortunately, as Jackson, Taylor and Adam (2010) and Chanock et al. (2009) acknowledge, a great deal of the work still done with students on their writing tends to be remedial rather than developmental. The term “remedial” suggests deficit-model thinking. Whether the support is embedded within a course or is adjunct to it, Hill et al. (2010) suggest that these initiatives are driven by the desire to “fix” a problem, rather than an approach where students build on existing skills to familiarise themselves with the desired academic-writing styles of their discipline. A number of studies suggest that a greater degree of success is achieved with a “bottom-up” approach, typically in the form of an imbedded intervention rather than a more remedial “one size fits all” approach (Catterall & Ireland 2010; Salamonson et al. 2009; Wingate, et al. 2011). This bottom-up approach is recognised as moving away from a student-deficit model towards a student-enhancement notion of embedded academic-writing support.

3.4 Multiple Approaches to Embedding

In marked contrast to the “no one size fits all approach” outlined by Friedrich (2008), earlier studies actually argue in favour of a generic approach to academic literacy provision and offer four reasons. The first reason relates to the generalisability of core skills; the second, to the lack of subject knowledge by writing specialists; the third, to the importance of getting the basics right first; and finally, to the cost-effectiveness of a generic approach to teaching academic writing. For further elaboration of these arguments, see Currie (1993), Leki (1995) and Johns (1997). Interestingly, this review of the literature has revealed an ongoing tension between the perceived value of embedded literacy approaches compared with a generic approach. Research conducted by
Lave and Wenger in 1991 (as cited by Wingate 2006) clearly points to the advantages of an embedded approach. The arguments outlined by Lave and Wenger articulate the development of a “communities of practice” model of discourse within different faculty programs. Practitioners have long recognised that students need to learn about the writing norms and the diversity of text types across disciplines (Nesi & Gardner, 2006), and the differing lecturer expectations of text types relating to content within faculty programs.

Over the last decade a growing number of studies have provided an indication of the many different approaches to embedding literacy skills. The variables in play can be summarised under the headings of logistics, student demographics and discipline considerations. Logistics include face-to-face time, with classes ranging from a one-off session of one hour to a full program of 12 hours over a semester; whether an intervention is credit-bearing or not; and whether the programs are voluntary or compulsory. The nature of the intervention might be tailored to the demographic breakdown of a particular class, taking into consideration students’ maturity, socio-economic background and/or ethnicity, sometimes with attendant language issues. A related issue is the varying degrees of cultural capital students bring to their studies. Discipline considerations include the level of course, whether at pre-degree, undergraduate or post graduate level; and the nature and complexity of the assignment task, such as essay, report or literature review. For further discussion, see, for example, Hyland (2002), Watt (2005/2006), Gunn, Hearne and Leach et al. (2010) and Sibthorpe (2011). From the literature, it would appear that most institutions are peopled with passionate, hardworking learning advisors who are prepared to adopt a flexible approach; Leach et al. (2010) explore how a number of different institutions have developed their own particular strategies to teach or embed literacy skills.

The multiple approaches to embedding literacy at tertiary level are well attested in the literature. From this review, it is clear that literacy initiatives are likely to be more effective if different approaches are developed to suit the discipline requirements of a particular group of students (Hill et al. 2010; Leach et al. 2010). Clearly, if academic-literacy learning is to be successful, the literacy program content needs to fit the discipline-specific context. As mentioned earlier, the AKO Aotearoa report by Manolo et al. (2009) observes that this contextual fit invariably leads to a range of approaches to provision. The concept of multiple approaches refers not so much to teaching techniques as to a focus on discipline-specific text types and lecturers’ assessment expectations. The use of multiple strategies to improve academic literacy is seen as desirable and more likely to lead to successful outcomes for students across a range of disciplines, taking into account the diverse nature of the student population. The literature indicates that where there is greater awareness of individual students’ strengths and difficulties, learning-development staff are more likely to adopt more student-centred approaches and greater encouragement of independent-learning strategies (Burt, Peyton & Adams 2003; Hill et al. 2010; Tusting & Barton 2007).

### 3.5 A Student-Centred Focus

Research has long highlighted the importance of a student-centred approach to both teaching content and embedding academic-literacy skills (Boud 1981; Jonas-Dwyer & Pospisil 2004; Blumberg 2009; Leach et al. 2010; Wingate et al. 2011). This approach tends to complement embedded initiatives that encourage student autonomy and awareness of self-efficacy in terms of their learning (Fenton-Smith 2012). This self-efficacy relates to the students’ belief in their ability to complete tasks and reach goals. A further benefit of a student-centred approach is that both content lecturers and academic-literacy specialists can work independently or collaboratively to assess students’ prior knowledge and develop resources and tasks that lead to more-positive learning outcomes for students. Extensive earlier research has highlighted the impact that student
autonomy, self-efficacy and self-directed learning can have on students’ learning outcomes (Biggs 1987; Bandura 1997; Benson & Voller 1997; Benson 2001; Fazey & Fazey 2001). More recently, Fenton-Smith (2012) has reported on an initiative in an Australian university where the students were given tasks that encouraged them to consider their self-efficacy strategies, embedded in a thematic course unit. With the ever-increasing numbers of students from diverse backgrounds and wider learning needs, the importance of this student-centred focus is imperative. Furthermore, with reference to the theoretical approaches discussed earlier, the link between critical-thinking skills and academic-writing development has been brought to the foreground (Kasper & Weiss 2005). Paul and Elder (2004) have published extensively on the importance of well-developed critical-thinking skills for academic rigour, and have asserted that new and better thinking can only be achieved where there are robust concepts of critical thought across faculty programs.

An embedded approach is also consonant with a heutagogy as outlined in Hase and Kenyon (2007). This approach is cognisant of the "emergent nature of learning" (p. 115) and promotes a flexible, responsive attitude towards curriculum development, taking into account each learner’s unique needs. Heutagogy can usefully be distinguished from pedagogy and andragogy. Pedagogy, traditionally associated with the teaching of children, focusses on the entire learning process and transmission of knowledge; andragogy, traditionally associated with the teaching of adults, focusses on the individual’s responsibility for their own learning, which may be self-directed or directed by a teacher; in contrast, heutagogy, irrespective of the learner’s age, focusses on the individual’s self-determination of what, where and when to learn. A heutagogy orientation differentiates knowledge acquisition, skill acquisition and learning as separate processes, each with a different focus. In differentiating each of these processes, the learner cultivates meta-cognitive awareness, and is ideally encouraged to become involved in the development of assessment tasks. Other commentators have noted the value of embedded literacy courses in encouraging students to critique their learning and question their knowledge, beliefs and understanding, and in so doing, develop greater self-reflection skills (Fenton-Smith 2012; McClure 2001). This enhances students’ ability to think critically about their learning in relation to others, both in terms of subject content and their ability to articulate that knowledge. In such an environment, students are more likely to develop greater autonomy and responsibility for their own academic-learning development.

Finally, a student-centred focus implies a recognition that not all students arrive at university with the same levels of cultural capital, as defined by Bourdieu (1986). Embedded interventions are an ideal opportunity to make explicit the characteristics of disciplinary genres and discourse practices often taken for granted by subject lecturers. Lillis and Scott (2007) focus on the importance of academic literacies for the study of academic communication and its significance as a field of inquiry.

### 4.1 Embedded Literacy Interventions at AUT

Embedded literacy interventions at AUT are provided at the undergraduate and postgraduate levels in four of the five faculties: Culture and Society; Business and Law; Design and Creative Technologies; Health; and Environmental Sciences. To date, learning advisors from the Student Learning Centre have been able to respond to requests from subject lecturers in all disciplines. However, due to staff and budgetary constraints, it may be impractical to meet all future demands. In practice, staff who already know of the work we do arrange for our continued involvement from one semester to another; at present, academic staff in many disciplines remain unaware of the nature of our work, or of the opportunities available for collaboration in developing subject-specific academic literacies. As demand increases, a procedure for rationalising the provision of
services according to perceived priority will be increasingly important. At the time of writing, the SLC is developing such a framework. Priorities take into account student demographics and the historical success and retention rates for a given course.

4.2 KEC: A Case Study of Embedding within a Compulsory Course

The KEC core course is designed to support health-science students in developing fundamental research skills (both quantitative and qualitative), and provides a gentle introduction to research paradigms. KEC is a prerequisite for entry into all health-science courses, and therefore takes a generalist approach. The stated aims of the course, as outlined in the course guide book, are to introduce students to the modes of enquiry that characterise academic disciplines in their field; to provide a foundation for developing students’ ability to engage in enquiry and analysis of information; to stimulate critical awareness of the ways knowledge is created and applied; to introduce the concept of scholarship in an academic environment and underline expectations related to academic integrity; and to develop competence in written, verbal and online communication that supports professional relationships.

In the course of a 12-week semester, students are first introduced to the concept of knowledge construction and paradigm positioning according to different disciplines. Then, through an enquiry-based approach, they are taken through the process of formulating and refining a research question related to their (proposed) course of study in one of the fields of nursing, physiotherapy, psychology, occupational therapy, etc. This in turn leads to the preparation of a modified literature review in which information from a range of sources is critiqued and synthesised.

Students are expected to explore a range of methodological options, to define the modes of enquiry and justify their choice of quantitative or qualitative methods. Given the positivist tradition underpinning much of the research in their field, students are required to articulate evidence-based perspectives in their assessment submission. Assessment comprises three written assignments and a verbal presentation. The written assignments are paced at fortnightly intervals, and the weighting assigned to each one reflects their increasing complexity. The first assignment is a short essay in which students provide background information for their enquiry, before formulating a provisional enquiry question. This allows lecturers to provide feedback that will help students prepare for the second assignment, a written enquiry framework. In this assignment, students are required to identify and evaluate relevant sources, justify their choice of appropriate reference sources and evaluate modes of enquiry related to their proposed enquiry question. The first two assignments are designed to give students the skills and background knowledge that allows them to move towards the main focus of the course, which is the production of a modified literature review relating to the refined enquiry question. Students are required to adopt a thematic approach, synthesising and evaluating the information from the sources identified. In the final two weeks of the semester, students share their findings, useful insights and possible research directions with classmates in a short oral presentation, which is assessed.

4.3 SLC Embedded Academic Writing Intervention in Support of KEC Course

As discussed above, the rationale for embedding the academic writing intervention is primarily to address issues of students’ success and retention, given their diverse educational backgrounds. At the beginning of each semester and throughout the course, students are encouraged to attend all
sessions. The rationale behind promoting the intervention as beneficial for all students is that it does not single out students from non-mainstream backgrounds; this normalises a focus on the importance of academic literacies.

Ideally, the academic-writing component would be compulsory; however, for logistical reasons, this is not possible, even though a strikingly high proportion of the students enrolled in this course typically experience difficulties with the course assessments (a modified literature review and an oral presentation). Specific difficulties include time management, interpreting assignment questions, identifying appropriate texts, reading critically, collating secondary data effectively, synthesising materials from different sources, planning and structuring the literature review, constructing coherent text (expressed in grammatically correct, formal English) and summarising their findings for the oral presentation. The embedded writing-skills intervention initially complements the KEC course by directing students’ attention to the specific linguistic features of the writing tasks; in this case, the structure of a literature review as opposed to an essay or report. In the course of the 12-week intervention, other skills are introduced. These include paragraph structure, grammar and APA referencing. However, in the first few weeks of the course, the emphasis is on formulating and refining a research question. To arrive at this point, students are first introduced to the practicalities of database searching, given that the first assignment is a short essay requiring students to provide background information for their enquiry question. A necessary preliminary step is to clarify the different types of possible sources, teasing out the differences between, for example, popular magazine articles and peer-reviewed journal articles or between sources such as Wikipedia and official governmental websites. Students are encouraged to exercise their own quality control in terms of systematically identifying source, currency, authorial expertise, genre and text purpose.

For the second assignment, students are given further instruction in identifying, evaluating and justifying their choice of reference sources and in articulating potential modes of enquiry related to their proposed enquiry question. This leads on to the main academic focus of the course, production of a modified literature review relating to the now-refined enquiry question. To support students at this point, considerable attention is paid to the practical implications of adopting a thematic approach to the essay. A perennial challenge for students involves synthesising and evaluating information from a range of sources; our response begins with systematic analysis of a range of exemplars, identifying salient features of text macro-structure and lexico-grammatical resources for constructing the various stages of a literature review. For example, a focus on transitivity from a Hallidayan perspective (Halliday 1985) might involve students working in groups to classify verbs according to process type, i.e. material (doing), mental (seeing, feeling, thinking), relational (being), behavioural (physiological and psychological behaviour), verbal (saying) or existential (“there is”). Using an inductive approach, students begin to notice patterns of usage and are able to produce paradigms to guide them in their own writing. A typical example is where students find that the sorts of verbs they need to use can be classified into four categories: reporting verbs (state, contend, argue, claim), doing verbs (examine, conduct, explore, consider), structuring verbs (begin, continue, proceed, conclude) and relational verbs (be, seem, appear, have). This approach provides students with useful resources to draw on when drafting and revising their written work. Following their submission of the major written assignment, students share their findings, useful insights and possible research directions with classmates in a short oral presentation, an exercise that involves the need for explicit guidance in summarising and selecting key information.
5.0 Towards a Best-practice Model

The proposed model is derived from a review of the literature relating to embedding, and from the authors’ extensive experience of embedding literacy interventions within different disciplines at a range of universities, in both New Zealand and Hong Kong. Philosophically, the model is aligned with a constructivist approach to education as outlined by Dewey (1958), Vygotsky (1978) and Kolb (1984).

Figure 1 – Best-practice Model

This model places the student (S) in a prominent position, symbolically positioned between learning advisor (LA) and subject lecturer (SL).
1. The point of departure is the assignment task, around which the literacy intervention is developed. There are two typical scenarios: either learning advisors identify courses with success and retention issues and reactively approach the subject lecturer(s) with an offer to develop an intervention; or, the subject lecturers proactively request assistance from learning advisors.

2. LA and SL analyse the assignment task, together with published learning outcomes and associated marking criteria. This phase includes a survey of disciplinary genres and discourse practices.

3. LA and SL assess learner needs and devise an appropriate intervention. In practice, the intervention can range from a one-off hour-long classroom session to a weekly workshop over a 12-week semester.

4. LA and SL team teach. In practice, the LA typically leads the session and solicits commentary, input and feedback from the SL. In an ideal situation, time would be allocated for student needs analysis and the compilation of a comprehensive graduate attribute profile.

5. LA, SL and S debrief. In practice, this can involve a range of dynamics; however, ideally, all teaching staff are present with a representative sample of students.

6. LA and SL revise the assessment and/or the intervention.

The model is presented in the spirit of a multiple-approaches philosophy, each intervention being tailored to the unique demands of the specific assignment, the course in which it is located, and its wider discipline-specific discourse community. Underpinning the whole model is the need for institution-wide support.

6.0 Applying the Model

At this point, it may be timely to apply the model, in considering the effectiveness of one embedded literacy initiative, using as a case study the KEC course in AUT’s Faculty of Health Science. The KEC literacy intervention is just one of a number of similar initiatives across the institution, which vary in their content depending on the discipline requirements and context.

The initiative under discussion has evolved over several years and attempts to cultivate a sensitivity to students’ discipline-specific discourses. In practical terms this includes an introduction to a range of well-written journal articles covering a variety of research methodologies, an awareness of the ontological and epistemological grounds associated with various disciplines and the identification of the major issues, controversies and political standpoints that have emerged in recent years. With respect to the assignment task, close attention is paid to formal assessment criteria and lecturers’ (often implicit) writing expectations. In keeping with the best-practice model, the content has been modified over time to suit the KEC course assessment requirements, whilst at the same time implementing learning tasks to develop students’ critical-thinking abilities and academic literacies.

6.1 A Student-Centred Emphasis

The greater literacy challenges, diverse learning styles and varied prior experience of the KEC student cohort have highlighted the value of student-centred and autonomous learning approaches to the academic-literacy development practices adopted in this program. A heutagogical approach, as outlined previously, focuses on each student’s self-determination of what, where and when to learn. With this orientation in mind, students are encouraged to supplement in-class teaching
activities with self-directed online tasks; and, in line with current developments in blended learning environments, literacy teachers are increasingly adopting a “flipped classroom” model in which students prepare by studying a topic independently (using resources such as YouTube clips from the Khan Academy); then, when they return to class, students are in a position to apply their newly acquired subject knowledge in problem-solving activities, with the teacher on hand to answer any queries (see, for example, Bergmann and Sams 2012 and Hattie 2008). It has been recognised that within the core health courses, there are greater numbers of students from AUT’s equity groups such as Māori and Pasifika, as well as high numbers of EAL and mature students. Hence, the importance of developing student-centred approaches to meet the needs of these particular groups in all aspects of this program is paramount. In practice, there has not been sufficient time to enable a systematic analysis of student needs. In an ideal world, students would undergo diagnostic testing before classes begin; this would be complemented by a post-intervention assessment. Successful alignment of the two would enable learning advisors and academic staff to compare student performance with graduate attribute profiles for each discipline cohort. For further discussion of the effectiveness of monitoring students’ performance longitudinally, see Baik and Greig (2009). A useful process model for mapping and embedding graduate attributes is outlined, with reference to an Australian tertiary context, in Bath, Smith, Stein and Swann (2007).

Institution-wide approaches that focus on learner autonomy are even more important considering that learner resistance to independent learning has been identified as a barrier to success in tertiary institutions (Blumberg 2009; Fenton-Smith 2012; Zimmerman 2000). The KEC intervention aims to support students in understanding the content, design and style of assessments. These assessments also encourage students to reflect on and describe the discrete research skills that have been introduced. By the end of the program, students will have reflected systematically on all aspects of the enquiry-based learning process and their ability to achieve the desired outcomes. The substantive course content of KEC is complemented in the intervention program by a range of carefully graded tasks, including interactive activities and a flexible approach to classroom teaching. In keeping with the student-centred emphasis, student representatives are invited to form a focus group to critique aspects of the KEC course and complementary literacy support; individual students are also encouraged to seek one-to-one consultations with learning advisors if they identify personal learning goals.

6.2 A Guided Methodology

In our institution, in common with most other tertiary institutions in Australasia, staff are stretched, with a limited number of academic-literacy development advisors available to support the continuing growth in student numbers across four campuses (Akoranga, Wellesley, Manukau and Millenium).

This challenge has affected how we work with students: we have had to carefully consider the most effective ways to reach as many students as possible; for example, face to face, small-group interactions, large lectures (120 students) and an increasing online presence. This moves away from the “quick fix” mentality that occasionally colours the discourse of individuals (staff and students) who perceive that the role of SLC is to provide a proofreading service for under-performing students. With reference to our core values, the SLC team subscribes to a “guidance rather than a remedial” approach in all our work with regard to learning development. This approach is underscored by a set of core values. In recognition of our bicultural Māori/Pakeha heritage, these core values are: mana/uniqueness; aroha/support; matauranga/scholarship; kia kaha/practicality and usefulness, and Te Tiriti o Waitangi/The Treaty of Waitangi (see Appendix).
Our values can be seen to directly relate to the approach that we take in all embedded initiatives where we acknowledge students’ initial strengths, support them in their new learning; and give them the skills to access and build their own knowledge and skills effectively. This philosophy also connects to our belief that a multiple-approach strategy is the most effective way to embed academic literacies.

6.3 Collaboration between SLC and Faculty Lecturers

Without ongoing support and cooperation between faculty heads, program leaders, lecturers and academic-writing specialists, it can be very difficult to provide effective interventions in the form of embedded literacy programs. The need to establish extensive networks and maintain effective working relationships has been identified as one of the most challenging aspects of our work. Where there is mutual respect and recognition for the unique contribution to students’ learning that both groups make, support for students’ writing development alongside discipline content is maximised. The programs’ valued contribution to student success has been recognised by the Dean of the School of Education, who notes not only that these literacy initiatives “assist in meeting AUT’s strategic objectives” but that they also “demonstrably make(s) a difference to student retention and performance” (Reid 2011, p. 1).

In the program described in this paper, the discipline lecturers and writing specialists meet each semester to debrief, give feedback, respond to student evaluations and fine-tune the program for the following semester. The embedded approach has been positively endorsed by both faculty staff and students. Unsolicited student feedback includes comments like: “I felt that I could use the time in better ways, especially when I attended the… essions and got a lot out of them” (C. Phipps, personal communication, 15 June, 2012). Perhaps one negative aspect of this intervention is that SLC learning advisors only see a very small group of students from this course due to the voluntary nature of the intervention. Therefore, not all at-risk students can be reached, as evidenced by lecturers’ observations of less-than-adequate literacy practices in the following semester and beyond.

Following focus-group discussions (with students who had successfully completed the course, and with learning advisors who had taught in the intervention), three areas for improvement can be identified: first, in an attempt to identify students’ needs earlier, more extensive research needs to be conducted into the student demographics to identify those students who are struggling; second, attendance should be compulsory for this group; and finally, ideally learning advisors and subject lecturers would team teach.

In general, collaboration between discipline lecturers and academic writing specialists is scheduled regularly, and staff members consult frequently with colleagues through regular attendance on faculty and exam boards and, where possible, on learning and teaching committees. SLC staff are increasingly able to exert their influence through membership on other committees, and it is desirable that this should extend to the Academic Review Committee, Ethics Committee and Academic Board. Strauss (2013) presents a cogent argument for the benefits that such membership brings in ameliorating the differences in perspective between SLC staff and faculty.

Where learning-development staff have been successful in building relationships with academic colleagues across the five faculties, strong links have been forged that have led to more-successful ongoing collaboration and embedding of academic-literacy skills. A recent initiative has been the English Language and Literacy Forum (ELALF), which promotes discussion between SLC and academic staff from faculties with interest and expertise in language and literacy development. The intention is to evaluate academic language and literacy initiatives across the faculties, share
skills and develop resources. It is envisaged that these conversations will ultimately lead to university-wide strategies. This happens to a limited extent with the Faculties of Health and Environmental Sciences, Culture and Society, and Design and Creative Technologies. ELALF provides an opportunity for faculty-based colleagues to receive constructive feedback on their programs and assessments. Given our close contact with students, SLC academic staff are in the privileged position of having awareness of a range of assessment guidelines and marking criteria across the disciplines; we are uniquely placed to contribute to discussions with respect to strategic alignment of learning outcomes, assignment tasks and marking criteria (see Biggs & Tang 2007).

6.4 The Multiple-approaches Principle

The rationale for adopting a flexible approach to embedded literacy initiatives is in keeping with the findings from the literature. A flexible approach allows us to tailor each intervention in consultation with faculty members. In practice, this means that some classes are voluntary, whereas others are timetabled within a course, and therefore compulsory. Feedback from colleagues working in a range of institutions suggests a preference for timetabling embedded literacy interventions, as compulsory participation is more likely to lead to successful student outcomes (Morris, 2008). However, this is not ideal, as many students would not need the additional support of the intervention. With respect to timing, a flexible approach allows us to offer interventions ranging from a one-off session to a fully structured program running throughout the 12-week semester. In some cases, we have been able to provide students with a credit-bearing program, which is recorded on their academic transcript and contributes to a Certificate in Education Bridging. As previously stated, the SLC’s resources are stretched, yet the faculty demand for embedded literacy initiatives seems to have increased. The challenge is to develop a more sustainable model, where academic literacy development is perceived as a shared responsibility between faculty lecturers and learning-development staff. The ideal scenario is one where lecturers and literacy specialists can collaborate and share methodologies and materials on ways to improve access for all students through varied approaches and techniques, such as those adopted both within KEC and other programs in which literacy development is embedded.

6.5 Institutional Support at AUT

The need for institutional support has been identified as a key indicator of the success of embedded literacy initiatives. See, for example, Chanock, Horton, Reedman and Stephenson (2012). At AUT, the value of the role and function of learning-support staff has been affirmed at the directorate level, and is clearly related to government-initiated policies and practice guidelines. In New Zealand, the Tertiary Education Strategy (Ministry of Education 2011) has emphasised tertiary institutions’ performance relating to participation and achievement rates. AUT University has developed strategic goals that include: strengthening students’ engagement with learning; enhancing services that promote student success; and increasing the participation of equity groups (AUT 2012). The intention with these embedded literacy initiatives is to help improve success and retention rates for Māori and Pasifika students in particular. Furthermore, the level of regard that we are accorded by the Vice Chancellor has led to the recent appointment of an Academic Director to lead the SLC team; this has confirmed the value of the work the institution’s academic literacy specialists do. While there are ongoing funding and resourcing constraints, this recognition
continues to be evident in the support for the SLC team to provide a growing number of embedded literacy initiatives across the disciplines. The other courses with embedded initiatives include Early Childhood Education; Primary Teacher Education; Theories and Models in Health Promotion; Design Core Theory and Computing and Information Systems; and Sport and Recreation.

7. Conclusion

In conclusion, given the importance of academic-literacy development as a criterion for successful achievement at the tertiary level, this paper has argued that all students are likely to benefit from having a literacy component embedded within their discipline-specific courses, particularly at foundation level. This paper began by outlining the theoretical rationale for embedding academic literacy skills in subject-specific courses. Then, arising from a review of the literature and from the authors’ practical experience with embedding, it proposed a best-practice model. The model is presented in the spirit of a multiple-approaches philosophy, with each intervention being tailored to the unique demands of the specific assignment, the course in which it is located and its wider discipline-specific discourse community. Consonant with a constructivist approach to education, the model gives pre-eminence to the learner and takes the assignment as the point of departure. At a practical level, the model is conceived as a useful guide to embedding literacy initiatives and as a point of reference for addressing institutional concerns, given the explicit need for institution-wide support.

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Te Tiriti o Waitangi is the foundation for all of our operations and guides our services, from the use of Te Reo Māori in our name to emphasis of dialogue and ongoing relationship between Māori and non-Māori.

Mana/Uniqueness – this acknowledges the need to see every person as a unique individual with their own characteristics, preferences and strengths.

Aroha/Support – this guides us to put people above all else in our operation. It leads us to develop venues for learning which allows for person-to-person dialogue and authentic communication and contact.

Te maramatanga me te matauranga/Scholarship – learning support demands rigorous standards of scholarship from its practitioners. For this reason, SLC staff are encouraged to be consistently engaged in learning, ourselves, so that we are up-to-date and current with recent developments in education as well as in touch with the uncertainties and stresses of being a student.

Kia kaha, kia maia, kia manawanui/Practicality and usefulness – this leads us to use a variety of solutions to meet students’ needs and to work to create the widest possible access of students to a diverse range of services in the hope that every student will find a strategy that will meet their own need. This value also guides us to develop new strategies and services.