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Making the invisible visible

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This article outlines the development and implementation of the Academic Skills Model (ASM). The ASM is a quality framework that is enabling professional staff to visually align assessment and workshop content and engage in conversations with our academic partners. The model's development and implementation pilot have been steered through an arduous and wobbly path of administration, organisational restructuring, multiple objectives and traditional work models for more than 18 months. Implementation experiences of professional staff have been collected and analysis suggests the ASM is helping academic staff visualise academic skills in courses and programs, while providing them with the language of academic skills to have better conversations with students and Library and Learning Services staff. It offers academic skills advisers and academics a way to engage while avoiding awkward conversations about pedagogy or content. The ASM is achieving its goals of building and developing partnerships across the university through the shared ownership and offering a way for the invisible work of professional staff such as Learning Advisers, Librarians and Digital Capability Advisers to be more visible to academic partners and the institution.

Key Words: Academic skills, embedding academic skills, digital literacy, information literacy, academic writing, higher education, academic language and learning, curriculum development.

1. Introduction

This article outlines an academic, information and digital literacies' framework that may offer a way for the invisible work of some groups of professional staff to be visible to our academic partners (Chanock, 2007; North, 1984). Griffith University accommodates Library and Learning Services (LLS), a division of the Deputy Vice Chancellor (Academic), which is undergoing changes in focus toward strategic, targeted and scalable services. Learning and Research Services is housed within LLS and includes Learning Advisers (academic literacy), Librarians (information and research literacy) and Digital Capability Advisers (digital literacy), referred to collectively as academic skills advisers in this article, whose roles all contribute to develop students' academic skills. Academic skills is broadly used here to be inclusive of academic, information and digital literacy. Library professional staff have increasingly moved toward intricate collaborations and partnerships with Academic Groups and student support services at all program levels (Oakleaf, 2015). During 2014, the Pro Vice Chancellor (Information Services) requested the development of an integrated academic skills' model (the Academic Skills Model), which was to underpin the remit of Learning and Research Services professionals and support the University's learning and teaching goals. Further, such a model could serve other purposes including targeted delivery of information, academic, and digital literacies through embedded workshops (Bowles-Terry, 2012; Munn, Coutts, Knopke, Grant & Barlett 2016) and alignment with graduate attributes

and transferable capabilities that support employability skill development (Blaxell and Moore, 2012; Bridgstock, 2017). Additionally, it was hoped the model would result in better data gathering around the quality of skill development and the impact of service delivery to student outcomes. The model's development and pilot have been steered through an arduous and wobbly path of administration, organisational restructuring, multiple objectives and traditional work models. The ASM provides a visual framework and common language for academic staff to interact with academic skills advisers around common goals, it serves to assist in organising services, providing legitimacy for what they do, while facilitating partnerships between academic skills advisers and academics.

2. Literature Review

2.1. Policy influences on universities and academic skills advising

Student retention and funding of universities has been a long-term concern of successive Australian Federal Government's (Higher Education Standards Panel (HESP), 2017). In response, universities have developed a continuum of academic and information literacy development centres and a range of advisory roles (Maldoni, 2017) which have focussed on preparedness training, acculturation of students into the university learning environment and academic literacy support (Cameron, Fraser, Looser, & Thorns, 2006; HESP, 2017; Munn et al., 2016). In the last ten years, the widening participation policy has increased student diversity in tertiary institutes (Bevitt, 2015; Larkin, Rowan, Garrick, & Beavis, 2016) and more students enter with academic and information literacy skill deficits (Munn et al., 2016; Thies, Wallace, Turner, & Wishart, 2014). More recently, education policy has universities focussed on graduates having pathways to employment, which has influenced the development of graduate attributes and student work experience opportunities (Blaxell & Moore, 2012; Higher Education Standards Panel, 2017). When all agendas are taken into consideration, and combined with the commercialisation of education, finding a way to deliver academic skills that align with demands of government has increased pressure on universities to respond.

2.2. Development of academic skills in universities

Traditionally universities have provided separate services to address students' academic, information literacy, technology and career skills with the intention to equip students with literacies pertinent to their future careers. Effective writing skills are highly regarded graduate attributes and sought after by employers (Blaxell & Moore, 2012; HESP, 2017; Rayner, Papakonstantinou, Gleadow, & Abbott, 2014), but universities tend to teach academic skills (Lea & Street, 1998) on the common assumption that training students early enough will carry them through the rest of their time at university. However, the same research by Rayner et al. (2014) showed that the skills students acquire in one course do not transfer to the next, therefore confirming universities' assumption about transferability of academic skills is inaccurate. Lea and Street (1998) criticised institutional emphasis on marking, plagiarism and academic integrity as discouraging writing and using it as a surveillance tool when institutions should be building students' identity as writers and teaching them academic literacies – not just skills. Maldoni (2017) pushed this agenda further by suggesting that academic and information skills are no longer adequate for students' functioning in a scholarly environment, as students require additional skills to function in a digital world. Hence, for universities to maintain relevancy to employers and students (HESP, 2017) it seems a combined focus on academic, information and digital literacies is necessary for students' skill development.

Since the 1960s student study skills have been identified by governments, universities, academics and professional staff as necessary for student success at university (HESP, 2017; Lea & Street, 1998; Lizzio, 2006, 2011). The Bradley Review (Bradley et al., 2008) compared student profiles between 1996 and 2007, showing the student profile had undergone substantial changes in that

time. It also recommended further diversification by increasing the proportion of younger students and students from low socio-economic backgrounds (Larkin et al., 2016; McKenzie & Egea, 2015; Potter & Bye, 2014). This increases pressure on universities to cater for a more diverse cohort, who may need extra support in the transition to academic studies (Potter & Bye, 2014; Wilson et al., 2014). Research suggests that students lack a basic set of study skills, with approximately 18% of students having inadequate academic skills to succeed at university (Sacre & Nash, 2010, as cited in Munn et al., 2016). Studies involving academic staff and academic literacy advisers also confirm that students' academic skills are perceived to be declining in undergraduate student populations (Lea & Street, 1998; Munn et al., 2016). The exception is the perceived adequacy of students' digital literacy by academic staff (Munn et al., 2016), but digital literacy is likely to receive more attention than academic or information literacy, because national policy is currently focussed on digital literacy. Since national policies have increased student diversity there is a need to ensure effective delivery of academic skills support.

2.3. Responsibility for academic skills advising

The Australian government places ultimate responsibility for addressing students' study skills with each university (Bradley et al., 2008; HESP, 2017), but the proportion of responsibility to be shared between academic staff, tutors, schools, departments and academic literacy professionals is a contested and complicated space. Research indicates there are three main perspectives about who should bear responsibility: The view of academics is that academic skills advisers need to 'fix' students in the university's crash-repair shop (Chanock, 2007; North, 1984); the view of academic skills advisers is that academics should share responsibility to teach academic skills (Goldsmith & Wiley, 2016; Janssen & Rowen, 2016; Maldoni, 2017; Yoo, 2016); and the view of universities is that students take responsibility for self-diagnosis and their own life-long learning (Bridgestock, 2017; Quinn, 2000).

Academic and information literacy advisers have been recognised as specialised professionals within universities for some decades (Cameron et al., 2006; Lea & Street, 1998; Yoo, 2016), but the perspective of our academic colleagues hampers our work and creates tension. Over thirty years ago North (1984) berated English Department academics about their ignorance of the role and importance of writing centres. That "...In their minds, clearly, writers fall into three fairly distinct groups: the talented, the average, and the others; and the Writing Center's only logical raison d'etre must be to handle those others ..." (North, 1984, p. 431) or collude with those 'others' to write their assignments (Ibid., p. 441). A decade ago Chanock's (2007) research indicated that the response from academic staff, to declining student skill, ranged from sending students to be 'fixed' (p. 169) by academic skills advisers to co-developing learning and teaching responses and incorporating those into assessment and teaching practices. The alternative is a referral model that Chanock (2007) delightfully described as the 'crash-repair shop' where academic literacy professionals are used as welders, panel-beaters and polishers of students' texts (Chanock, 2007, p. 169). It seems clear that the view of our academic colleagues, and universities, is that academic skills advisers are responsible for fixing students and repairing their texts for academic approval. More recent studies (Goldsmith & Willey, 2016; Janssen & Rowen, 2016; Munn et al., 2016) suggest this tension has not moved on and that academic advisers predominantly 'fix' student work.

Academic skills advisers have been advocating the value of teaching academic skills and shared responsibility with academic colleagues (Lea & Street, 1998; Thies et al., 2014) in three main areas: teaching pedagogy (Goldsmith & Willey, 2016; Janssen & Rowen, 2016; Munn et al., 2016; Wang, 2011), curriculum (Blaxell & Moore, 2012; Thies et al., 2014; Wang, 2011) and assessment (Lea & Street, 1998; Yoo, 2016), but getting 'buy in' can be difficult (Thies et al., 2014). What has been consistent in the literature is the desire of academic skills advisers to collaborate with academic colleagues; the effort and time expended to explain the value of academic skills; and drawing explicit connections between assessment and teaching pedagogy to motivate academics to participate (Goldsmith & Willey, 2016; Maldoni, 2017; Munn et al., 2016; Thies et al.,

2014; Wang, 2011). The same studies also revealed that academic staff can identify academic skills and understand the value of them, but 50% do not teach it in their courses (Blaxell & Moore, 2012; Munn et al., 2016). However, more recent research by Charlton (2017) mitigates some of the perception that academic skills are undervalued by academics and under-taught by academics and tutors (Goldsmith & Willey, 2016; Munn et al., 2016). Charlton's (2017) research indicated that our academic colleagues may not possess adequate knowledge about assessment or have the time to teach academic skills. As academic skills advisers are invited to co-develop resources and embed academic skills within courses and programs (Janssen & Rowen, 2016; Maldoni, 2017; Yoo, 2016), it implies that the "50%" of academics who do teach academic skills share this responsibility but embedding with the remaining "50%" requires careful navigation between roles and responsibilities.

The third perspective regarding responsibility for academic skills is that it should rest on the student's shoulders. Maldoni (2017) argues that academic expectations need to be explicit to assist 'at risk' students to develop the skills they need to succeed at university. Lizzio (2006; 2011) also highlights the need for students to develop a sense of capability, understanding the expectations placed on them and an ability to master basic academic skills. However, there is also the sentiment that students are spoon-fed too much when they should be self-determining and left to struggle as a way of learning (Charlton, 2017). The integration of online delivery is an emerging trend in higher education (Larkin et al., 2016; Rae & Hunn, 2015), which provides an alternative learning space and encourages more self-directed learning. However, Larkin et al. (2016) note that mature students object to too much content being placed online. Although online delivery is eventually cost and time efficient for the university, it places the responsibility of learning academic skills on students. Developing a sense of resourcefulness (Lizzio, 2006) is also essential as students need to have a willingness to seek help and know where to locate the information they require. Consequently, students shoulder some responsibility for their learning and development of academic skills that adds to the ambiguity of responsibility amongst academics, academic skills advisers and students. The ASM, as a literacies framework, provides a way to organise information for students to make the links themselves, but the overall responsibility stays firmly with the university.

2.4. The invisible learning adviser

Predominantly the role of academic skills advisers is invisible to academics and university administration. There is a continuum of academic literacy development models across universities from a discrete unit delivering workshops outside the discipline to integrated into the discipline; contextualised workshops co-developed and co-taught with academic staff to individual consultations (Maldoni, 2017). In our institution, the move to a more sustainable and scalable service has academic skills tutoring outsourced to an online service or provided through digital learning objects embedded into course websites. Face-to-face services include workshops that are embedded into courses at the request of academics and a referral model for individual or small group consultations. Although embedding is best practice for student learning (Maldoni, 2017; Munn et al., 2016; Thies et al., 2014), it means academic skills advisers hand over the kudos for student learning through seamless service delivery to our academic peers, maintaining obscurity for academic skills advisers (Chanock, 2007). Individual consultations are also effective for student learning, but result in the "fix it" mentality to repair students out of sight, compounding the invisibility of academic skills advisers.

2.5. Improving conversations with academics

Since North's article, significant work has been undertaken to develop strategies and frameworks for academic and academic skills advisers to collaborate and communicate (Drew & Klopper, 2014; Lizzio, 2006, 2011; Thies et al., 2014; Wang, 2011; Yoo, 2016), but much is still left to do.

Researchers have shown that work of academic skills advisers informs learning and teaching pedagogy, assessment and student learning, but it requires academic partners who are motivated to improve their teaching and focus on student needs (Drew & Klopper, 2014). Interviews conducted by Charlton (2017) indicated that academics are influenced by their conception of students' academic ability based on previous cohorts, which affects how they approach assessments and teaching. Therefore, academic skills advisers either engage with motivated academics who understand and value the work we do, or we convince them that the work we do will add value to their students and ultimately the academic's work. The need for common ground and language between academic skills advisers and academic staff is required and useful (Thies et al., 2014; Yoo, 2016) to ensure the visibility of what we do and show how we can assist students' development of academic skills. Consequently, academic skills advisers need to develop strategies that improve academics' understanding about how students' can be supported.

3. The Academic Skills Model

3.1. What does the ASM address?

The ASM facilitates collaboration and improve communication between academic skills advisers and academic staff to ensure students develop academic and transferable skills. It is a quality framework that supports the development of academic, information and digital literacies within programs of study, and aligned to course assessment items (see Appendix A). The model places the student at the centre of learning and teaching and consists of literacies derived from three main sources: an audit of advisers work practices to determine successful academic study skills; professional and scholarly literature; and existing literacy schemas. The basis for the ASM is Harper's (2011) Academic Literacy Development Framework and Willison and O'Regan's (2013) Researcher Skills Development Framework, as the concepts of academic and information literacies were evident and student focused, but neither directly addressed digital literacies. Like these models, academic and information literacies form the basis of the Academic Skills Model as they provide the skills and attributes Griffith University expects students to attain. Over time and through necessity, the model was expanded to align with available technology platforms, academic success, employability and student experience policy agendas. The ASM makes the link between the role of LLS professionals and academics staff more visible in how we can share the responsibility of student learning in a more proactive way through embedded workshops and online support, rather than panel-beating remediation of students' work (Chanock, 2007).

3.2. Our context

In our institution, the role of Library and Learning Services is to provide expert support services to students and academics in their learning, research and teaching. It achieves this by offering a suite of services and instructional programs through Learning Advisers (academic literacy), Librarians (information literacy) and Digital Capability Advisers (digital literacy) to support the University goals of work ready graduates (Griffith University, 2016a). At Griffith University the underlying assumption is that academics are responsible for providing students with the skills to complete their assessments, including academic skills (Griffith University Academic Committee, 2016b). However, research suggests that academic staff often lack the time, confidence and, occasionally, the will to teach academic skills (Charlton, 2017; Chanock, 2007; North, 1984) deferring responsibility to academic skills advisers. At Griffith University, it is the responsibility of academic staff to initiate service provision from Library and Learning Services. Academic staff can lodge a request via an online form and prior to the trimester starting, which initiates an internal process whereby a meeting is organised between the academic and advisers. The academic skills adviser uses the frameworks to determine and map the skills students require for the assessment and which services need to be involved. In this way the frameworks become the benchmark for Library and Learning Services professional staff and demonstrate the rigour of our work to academic staff.

3.3. Designing the ASM

To suit our institutional context the ASM aligned the literacy frameworks with Griffith's Graduate Attributes and Five Senses of Success (Lizzio, 2006 & 2011). Initially academic and information literacies were developed as two separate frameworks, to align with respective professional advising roles. A digital literacy framework was required to align with the Core Skills for Work framework (Department of Education, 2015) shifts in curriculum direction. It was developed separately amid changes to Library and Learning Services service model, policy redirection and disestablishment of the professional ICT Training role, adding more complexity and delays to the development process. It resulted in three literacy frameworks, with a consistent format, common language and alignment to institutional objectives, which accommodate separation when required. Once the frameworks were drafted, transferability of academic skills beyond graduation emerged as a University priority (Griffith University, 2016a). The ASM frameworks were re-examined, using Employability Skills Framework and Core Skills for Work (Australian Government, 2013), to identify core and transferrable skills to determine which ones could be enhanced or reinforced.

3.4. Literacy categories

The literacy categories were developed from an audit of services offered by professional advisers and existing academic skills models. The sequential logic, foundational to complex skills, was adopted from the RSD and applied to the ASM to indicate student development. The horizontal axis of all frameworks contains the literacies and alignment with the Griffith Graduate Attributes. One of the key differences of the ASM to existing models was the inclusion of collaboration as a literacy because it is relevant for future employment and tertiary study (Bridgstock, 2017; Clarence & McKenna, 2017; Department of Education, 2015). The information and digital literacies were grouped into five categories, and six for the academic literacies, for ease of utility.

3.5. Levels of literacy

The three frameworks were created with uniform levels of literacy development on the vertical axis, progressing from scaffolded to independent, to resemble a marking rubric. Initially the ASM adopted all five levels from Harper's Model, but they were reduced to four in response to feedback that there was minimal difference between some levels. The distinction between topic and discipline knowledge, and descriptors were also retained from the Academic Literacy Development Framework (Harper, 2011) because it was already familiar and aligned with the student lifecycle. The literacy levels are used to indicate the extent that academic skills are associated with each assessment item, course or academic program. Once an adviser has completed their evaluation it is then used to facilitate an initial discussion between academic skills professionals and teaching academics.

4. Applying the Framework: Testing and implementation

Until this point, concepts within the model had been confined to the development team therefore the ASM underwent a period of testing and peer reviewing. The project team decided that three phases of testing would be undertaken: concept, pilot and implementation. The ASM concept was introduced to key users, who were likely to be communicating with academic partners, via a series of workshops. The workshops were held to assess the accuracy of academic skills categories, literacy levels and language used in the ASM so that likely users could understand its purpose and visualise how to use the tool with academic staff. Staff were provided with materials and an overview of the frameworks, then invited to provide feedback as part of the concept phase. As a consequence, literacy levels were reduced to four, terminology in the 'descriptors' was refined and re-sequenced, and language within frameworks was amended. Finding the balance between the value of the suggestion while retaining meaning and utility of descriptors and within a strict word limit was challenging.

The second phase involved the project team piloting the updated ASM with academic staff from eight courses across different programs, to determine the efficacy of the model and determine an engagement process. The ASM was introduced to academic partners and their feedback sought and documented to determine whether the literacies, levels and language were appropriate for our academic partners. Engagement experiences were also documented to facilitate an appropriate process for other staff to follow. This phase involved using the frameworks to map course assessments then arranging to meet with academic staff. The exercise showed that familiarity with the academic group, course and academic aided conversations and implementation, but service restructuring meant some staff would have less familiarity with academic partners. Consequently, further staff training sessions were conducted where the processes of mapping and engaging with academic partners were addressed.

An additional exercise of mapping the assessments within a program was undertaken to determine the extent of utility of the ASM. A meeting was organised with the program convenor, curriculum consultant and two Blended Learning Advisers to assess the value of the exercise to each role. It became clear that a common colour code for the sequence of assessments was needed to add clarity about how many assessments were being asked for and which academic skills were being developed in each course, major and program. Also documenting each instance of administrative course access was valuable for indicating intervention was required to improve accessibility to material for students and training needs for academic partners.

The final phase was full implementation of the ASM. Academic skills advisers were asked to implement the model and document their experience and interactions from trimester one to week six of trimester two. The majority of workshops are organised during these periods and would provide the best opportunity to gain insight into the extent the Academic Skills Model facilitated and strengthened partnerships. Textual analysis of staff documentation was undertaken.

4.1. Positive academic responses

Analysis of academic skills advisers' experiences was conducted from 55 responses that showed academic partners welcomed assistance from advisers, they were positive about the familiarity of the layout and accessibility of the language. Overall, 76% of the responding academics were receptive to the frameworks, the literacy levels and the descriptors in the ASM. In addition, 26% of those engaged in discussion about altering the language of the assessment to make it clearer or modifying the task to suit the cohort. The visual nature of the model provided the opportunity to demonstrate an alternative understanding of literacies evident in assessment tasks. Where this occurred, advisers explained the language used for the literacies and promoted services to support the academic and student development. One academic described how "She was delighted with the descriptors as it would give academics the language to describe academic skills". Generally, these meetings are not the place to hold conversations about assessment practices, nor are such conversations within our role, however the feedback from these encounters suggest academics were glad of the help and asked for explanations about how academic skills had been estimated using the ASM. It also suggests that using the ASM enables indirect influence of assessments and education of our academic partners in relation to academic skills.

4.2. Facilitating internal collaboration

Another effect that emerged from analysis was increased collaboration between Library and Learning Services staff while using the ASM. The three frameworks enable staff to individually evaluate course assessments, however it became more efficient for two or three staff to simultaneously evaluate the course. This facilitated conversations between roles while also providing support for each other to learn how to use the model. Feedback confirmed more staff were involved in evaluation, but also meetings with academics. However, organisational changes created a new service model and alliances during the time of development and implementation of the

ASM. It is uncertain whether collaboration occurred because of the ASM or the on-going iterations of the service model.

4.3. ASM increasing our visibility

The ASM frameworks provided visual maps that academics liked. Their feedback suggested they liked the layout of the frameworks and their similarity to marking criteria and "… the visual nature of the model and the cross-checking of learning outcomes with the assessments". It illustrated that the ASM provided the means for academics to clarify their course content and align assessments with learning and university outcomes. Similarly, the program mapping exercise highlighted the requirement for foundation academic skills to transfer with the student cohort into their subsequent years of study. The maps indicated that the assessments were different and required literacies were not being taught across the first-year cohort, which would affect students' learning in subsequent years. The program convenor wanted to "... place them [the assessment maps] on a wall and invite all of her program convenors to attend ..." because the visual nature of the ASM provided an immediate overview of assessments, skills and alignment with university, school, program and learning outcomes. The ASM is a visual tool that made it possible for our academic partners to see what we do.

Academics recognised an alternative application of the ASM as a self-assessment tool for students. This coincided with other university initiatives, which resulted in development of an Academic Skills Workbook, consisting of online learning modules that are used in conjunction with an e-portfolio. Development of the workbook was undertaken by partnering with Learning Futures, who interface with academics and are responsible for Learning and Teaching in the university, and Careers. The workbook can be used as an assessment item increasing the visibility of academic, information and digital literacies to students and academic staff. The workbook is useful for highlighting the role of LLS professionals in supporting academics to facilitate the development of students' literacies and creating partnerships across the university. Through the workbook the Academic Skills Model is making the invisible work that we do, more visible to academic partners, students and other university elements.

A second project was the development of an online version of the Academic Skills Model. This was in response to LLS staff requesting an online version of the ASM to facilitate simultaneous access to assessment maps while conducting meetings using the telephone, online or video conference facilities. The aim is for our academic partners to access the ASM themselves and use it to help diagnose the students' level of academic, information or digital literacy. It is located within the Library website with other resources that support academics teaching. However, functionality is limited by the content management system (which contains Griffith's website content) and the web authoring environment restricts the ability to customise interactive elements. Although likely to increase the visibility of ASM, it is still too soon to determine the extent.

5. Future Research

LLS has progressed the visibility of academic skills advisers in our institution while supporting students' learning and academic partners. It would be useful to interview staff about their experience using the ASM to collaborate with LLS colleagues because of the causal uncertainty between organisational change and the ASM facilitating conversations. The online version of the ASM also needs to be included in future research as this mode was not available for academics at the time of this research process. Similarly, the Academic Skills Workbook was also being finalised for implementation. Therefore, how the Workbook is included within numerous programs and courses will need to be investigated as these will allow students to undertake modules to develop their academic, information and digital literacies. The model and workbook have forged new partnerships with Learning Futures and Careers and research could also focus on how these evolve and what other partnerships develop to support student literacies.

6. Conclusion

In summary, the ASM is increasing visibility of academic, information and digital literacies through strategic partnering with the university hierarchy, academic groups, teaching academics and students. It is progressing towards broader dissemination through the online version, workbooks and face-to-face meetings with academics which facilitates the development of students' academic skills. As the ASM is a visual tool, academic skills advisers do not have to engage in awkward conversations about teaching choices, poor articulation of assignments, marking criteria or appropriate targeting for the cohort as assessment mapping made that obvious. It has provided the means for academics to start the conversation with us or an opportunity for LLS to discuss the services we could deliver to meet the gap between academic expectation and student literacy. Implementing the ASM at program level was effective for providing an overall picture of students' academic skills and identifying courses where they could be improved. Although useful for reinvigorating the program, ideally implementation at the inception of a course may be better for embedding academic skills throughout the program. In this way, the Academic Skills Model is making the invisible work that we do, more visible to academic partners and students.

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Appendix A. Academic Skills Model: Tables of Literacies

[1]Academic Literacies						
Relevant Attributes[1] numbered within this row	A Read and evaluate academically [1]	B Extract relevant information and make notes [1,2,4]	C Analyse and respond to questions [1,2,3]	D Apply and synthesise information [1,2,4]	E Organise and communicate information to report [2,3,4,5]	F Collaborate and interact in a variety of settings [2,3,4,5,6]
Skill Development Areas *Examples that may be covered in workshops, indiscipline sessions and consultations*	*Comprehension, key words, skim reading, reading journal articles, reading, critically use evaluated discipline specific information.*	*Note taking styles, time management, listening, concept mapping, paraphrasing and organising information.*	*Exam and quiz preparation, unpacking assignment questions, structuring, and writing academically.*	*Critical thinking, academic writing including summarising, and synthesising multiple sources of information.*	*Discussion boards, academic writing formats, presentations and group work.*	*Group work, reflective writing, academic writing formats and oral presentations, online seminars.*
The Five Senses of Success	Capability Purpose	Purpose	Capability Purpose Resourcefulness Identity	Capability Purpose Resourcefulness Identity	Capability Purpose Identity	Capability Purpose Connectedness Identity
Literacy Levels						
Level 1 **Scaffolded** Students require high levels of scaffolding to develop literacy within a <u>topic</u> area	Students display some understanding and knowledge of the topic area to use evaluated information to clarify purpose.	Students identify relevant information and make notes to summarise and paraphrase what they consider important.	Students respond to stimulus and respond to the topic to develop new understanding.	Students recall previous knowledge by applying and synthesising some discipline specific information.	Students use simple guidelines to organise and communicate information to a known academic audience.	Students listen and are moderately involved in physical and virtual learning spaces and group work.
Level 2 **Supported** Students require some levels of scaffolding to develop literacy within a <u>topic</u> area	Students understand and display knowledge of the topic area to use evaluated information to clarify purpose and expectations.	Students identify relevant information and make notes by paraphrasing, and summarizing and interpreting materials paying attention to discipline-specific language.	Students respond to stimulus and to the subject with relevance and some analysis.	Students rearrange previous knowledge by applying and synthesising discipline specific information.	Students use simple formats from a particular viewpoint to organise and communicate information to a wider academic audience.	Students listen and are actively involved in physical and virtual learning spaces and in selected groups.
Level 3 **Supervised** Students require some levels of scaffolding to develop literacy within a <u>discipline</u>	Students understand knowledge of the discipline to use evaluated information effectively.	Students identify relevant information and make notes through targeted transcribing, paraphrasing, summarising and expanding, competently using the language of the discipline.	Students analyse and respond to own research topic in their field of knowledge.	Students identify some gaps in discipline knowledge and apply and synthesise information to fill those gaps.	Students use an appropriate format to organise and communicate information from multiple perspectives for a targeted discipline-based audience.	Students listen effectively, participate in physical and virtual learning spaces and collaborate in self-selected work groups and networks.
Level 4 **Independent** Students independently develop literacies within a <u>discipline</u>	Students have extensive knowledge of the discipline and independently evaluate information effectively.	Students identify important information and make notes through strategic transcribing, summarising, paraphrasing and elaborating confidently using the language of the discipline.	Students competently generate researchable stimulus and respond to the field with scholarly relevance and in-depth analysis.	Students identify gaps in discipline knowledge and apply and synthesise information to fill those gaps in order to contribute to discipline knowledge.	Students use an appropriate genre to organise and communicate information from multiple perspectives for an array of audience types within the discipline.	Students physically and virtually collaborate professionally in self-selected work groups and networks

Information Literacy

Relevant Attributes[1] numbered within this row.	A Identify Information Need [1]	B Access Information [1]	C Evaluate information[1,3]	D Manage Information[2,3]	E Ethical scholarship[1, 2, ,4, 5]
Skill Development Areas *Examples that may be covered in workshops, indiscipline sessions and consultations*	*Establish the need for information.* *Understand scope of information needs.* *Ability to identify personal knowledge gap.*	*Find information resource and quality characteristics of different resources by types.* *Identify where to locate information in a scholarly context.*	*Apply appropriate criteria to evaluate information resources.* *Acknowledge the social and cultural influences on information creation.*	*Understand the need to store and manage information and suitable methods to do this. Record bibliographic information.*	*Acknowledge use of information sources with academic integrity.* *Understands the legal and ethical responsibilities in the scholars' context.*
The Five Senses of Success	Purpose	Resourcefulness Purpose Capability	Capability	Purpose Capability	Capability Purpose Identity

Literacy Levels

		A	B	C	D	E
Level 1	**Scaffolded** Students require high levels of scaffolding to develop literacy within a <u>topic</u> area	Students understand a given information need and can address this knowledge gap.	Students locate applicable information using prescribed texts and strategies.	Students evaluate information using prescribed criteria.	Students organise information using prescribed structures to record bibliographic information.	Students acknowledge information sources using prescribed methods.
Level 2	**Supported** Students require some levels of scaffolding to develop literacy within a <u>topic</u> area	Students identify their information need and personal knowledge gap.	Students locate applicable information using self-selected texts and strategies.	Students evaluate information using criteria related to the topic area.	Students record and organise information using prescribed information management processes.	Students ethically interpret information and acknowledge information sources for their topic using prescribed methods.
Level 3	**Supervised** Students require some levels of scaffolding to develop literacy within a <u>discipline</u>	Students understand knowledge gaps in the discipline and identify relevant information.	Students locate applicable information using search guidelines and a range of search strategies.	Students evaluate information using self-developed criteria that considers the social and cultural influences on information creation.	Students self-select discipline specific processes to organise and record information.	Students apply & understand author rights, ethically interpret and acknowledge information using methods appropriate for their discipline.
Level 4	**Independent** Students independently develop literacies within a <u>discipline</u>	Students identify knowledge gaps in the discipline and appropriate information sources.	Students locate information by creating sophisticated search strategies.	Students evaluate information using discipline experience and knowledge, including the social and cultural influences on information creation	Students create and adapt processes to suit their needs for organising and recording information.	Students consistently, ethically and legally manage and acknowledge information using methods appropriate for their discipline or publishing purpose.

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[1] See Potential Griffith Graduate Attributes 2017 below the tables.

Digital Literacies[2]		A **Access and use digital technologies [1,2]**	B **Evaluate digital technologies are fit for purpose** [1,2,3]	C **Sustainably manage and store digital resources** [1, 2,3]	D **Ethically gathering and processing data using technologies** [1, 2, 3, 4]	E **Communicate and collaborate using technologies** [2, 4, 5, 6]
	Relevant Attributes[3] numbered within this row.					
	Skill development areas *Examples that may be covered in workshops, in-discipline sessions and consultations*	Accessing Learning@Griffith, using spreadsheets, academic writing, reports, presentations, interactive online module.	Making an introduction video, presentations, using digital office tools to write assignments or discipline specific software (e.g. spss).	Using external storage devices and cloud storage solutions, data safety and back-ups.	Collecting and storing survey information, SPSS & Nvivo Copyright and licensing	Group work, forums, webinars, digital portfolios, blogs, digital branding and online profile.
	The Five Senses of Success	Capability Resourcefulness	Capability Resourcefulness Purpose	Capability Resourcefulness Purpose	Capability Connectedness Identity Culture	Connectedness Identity Culture Purpose

Literacy Level						
Level 1	**Scaffolded** Students require high levels of scaffolding to develop literacy within a <u>topic</u> area	Students access and use digital technologies (including network and media devices, a range of apps and specialist software or hardware).	Students access software to prepare and communicate data for academic purposes.	Students access digital environments with some awareness of storage responsibilities and make some attempts to adapt to changing technologies.	Students use digital tools prescribed to suit discipline purposes and an awareness of ethical requirements.	Students access and use prescribed digital technologies for communication purposes with academic peer group.
Level 2	**Supported** Students require some levels of scaffolding to develop literacy within a <u>topic</u> area	Students manage digital technologies (including network and media devices, a range of apps, and specialist software or hardware required for learning.	Students evaluate the capabilities and suitability of software to prepare and communicate data for academic purposes.	Students access and store their online information in a digital environment and adapting to changing technologies.	Students choose and use digital tools to suit own purposes, adhere to ethical requirements and	Students demonstrate some capacity to evaluate digital technologies appropriate for communication with academic audience.
Level 3	**Supervised** Students require some levels of scaffolding to develop literacy within a <u>discipline</u>	Students evaluate and adapt to changing digital technologies including network and media devices, a range of apps, and specialist software or hardware.	Students integrate different software to prepare and analyse data to visualize and communicate information for either professional or academic purposes.	Students manage and secure their online information across multiple digital environments as directed.	Students choose and blend technologies to evaluate the application of digital tools beyond basic functionality to suit disciplinary contexts and adhere to ethical requirements	Students select and manage appropriate digital technologies for communication purposes with a targeted audience.
Level 4	**Independent** Students independently develop literacies within a <u>discipline</u>	Students confidently integrate digital technologies including media devices, a range of apps, and specialist software or hardware.	Students independently choose and use software to capture, analyse and communicate data for professional and academic purposes.	Students manage and secure their information across multiple digital environments and create spaces to disseminate information.	Demonstrate advanced ability to critique the capabilities of research tools for a variety of purposes and adhere to ethical requirements.	Students use a variety of digital communication technologies to collaborate with academic communities and industry partnerships.

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[2] Digital Literacies include the ability to find and use information, as does information literacy. Digital literacy also entails the ability to communicate in a digital world in a variety of ways; it demands capacity and ability to collaborate and to work in teams across institutions and borders. Being digitally literate means being socially aware in the digital environment, understanding e-safety and creation of new information. Information literacy, academic literacy, and digital literacy are each underpinned by critical thinking, reflection, and evaluation.

[3] See Potential Griffith Graduate Attributes 2017 below the tables.

Griffith Graduate Attributes

1. Knowledgeable and skilled, with critical judgement
2. Effective communicators and collaborators
3. Innovative, creative and entrepreneurial
4. Socially responsible and engaged in their communities
5. Effective in culturally diverse and international environments
6. Culturally capable when working with First Australians