Academic integrity and the transition to higher education: Curriculum design for initiating a scholarly apprenticeship

Frances A. Gaynor
Macquarie University
Email: fran.gaynor@mq.edu.au

Category: Non-refereed

An understanding of what constitutes academic integrity underpins a successful transition to university. The development of knowledge, skills and approaches informed by this understanding are essential for engaging with the practices of the academic community. This paper will unpack key aspects of the curriculum design used in the creation of three units developed for students in their transition to first year in higher education. In their scholarly apprenticeship students are guided to make informed, academically honest choices when selecting and utilising resources. An early focus on academic values is used to make these values explicit, later they are reinforced through pedagogy, resources, learning activities, assessment and feedback. Students are guided to engage with their disciplinary community and its expressed knowledge by applying critical thinking when selecting resources, when extracting and interpreting ideas, and then when acknowledging the contribution of others to the texts they create. The importance of establishing a process and a rationale for each aspect of the reading, thinking, writing cycle emphasises the negotiated nature of knowledge creation and dissemination. Equally, it develops the relationship between students and their disciplinary community by fostering a greater awareness of the use of academic conventions that must be adopted by novice writers. While each of the units developed for the transition to university targets a different discipline the fundamental principles of academic honesty are the same whether associated with collaborative or independent learning. These units attempt to lay a foundation for students to make appropriate choices, to engage confidently and to act with academic integrity in all aspects of their learning.

Introduction

An increasing prevalence of plagiarism and other malpractice is often attributed to the new conditions imposed on the higher education environment. The size of the university education system is characterised as ‘massified’, it is increasingly deemed to be operating as part of a market based industry sector of the economy, and it has been given a broader mission to contribute to society through greater access to education allowing a greater diversity in student profile and preparedness are nominated as barriers to quality outcomes. In addition, the technological environment provides further complexity in the form of new modes of delivery, new sources of information and new ways of producing and distributing knowledge.

Rust, O’Donovan and Price (2010, p. 232) dispute factors such as massification and new student profiles as the cause of increased instances of dishonest practices and further suggest there is a lack of evidence to support this notion. Instead they associate the increase, or perceived increase, in dishonest practice with the lack of capacity of academics to deliver units and programs using appropriate pedagogies, and to implement coherent learning, teaching and assessment. They also suggest that at the core of poor practice is the difficulty students experience in their attempts to gain new knowledge which may go unrecognised as tacit knowledge or even not fully comprehended when provided in the form of explicit knowledge.

This paper addresses one attempt to promote scholarly practice and in doing so informs and initiates students to the universities expectations and practices for honest and ethical conduct. Three new units have been developed at Macquarie University with the aim to assist in the transition to first year at university by clarifying these expectations, and by improving students’ level of academic literacy so they have the capacity to demonstrate these qualities. The three units are targeted to different disciples and available to students in any program at the university.

One means to address poor practice is to ensure the concepts and practices are made explicit through an orientation, readings, discussions and learning activities. As the learning progresses these concepts and practices become embedded in learning tasks and reinforced through assessments and feedback. This paper reflects on the intentions and philosophy of practice informing the curriculum and illustrates several aspects of learning and teaching practice that have, in the main, assisted students to develop the confidence and capacity to demonstrate their learning and eliminate some of the unintended malpractice that arise when expectations are not clear and capacity not developed. Intended dishonesty or deliberate plagiarism and its detection is outside the scope of this paper.

Designing learning to enhance academic honesty

A design for learning that that achieves its nominated disciplinary purpose, address the social and ethical framed by graduate capabilities and that increases the level of academic literacy while fostering academically honest practices requires a carefully planned and coherent approach. As these units are taken at the point of entry to higher education they are at their core a form of initiation into the scholarly practices of the academic community. Scholarly practice encompasses the notion of knowledge creation and transmission, but equally, it asks students to begin to adopt the values of their disciplinary community, and to act purposefully, and with integrity, in the way they undertake their studies.

In designing the curriculum for these units all aspects of learning and teaching had to be taken into consideration as each element contributes to the formation of a scholarly identity as students begin what Rogoff (1991) deems to be their apprenticeship into the disciplinary communities of practice (cited in Duff, 2007, p.3).

Developing a new approach to academic integrity

Three basic approaches to addressing academic integrity identified by Elander et al (2009) are strategies for detection, the use of honour codes and initiatives to improve writing. While each will contribute to aspects of malpractice they frame academic honesty and integrity in problematic ways. A fundamental problem that exists when adopting one, or all three, of these approaches that there is often a lack of a shared perspective amongst staff, and between staff and students, as to what academic integrity actually means, and how important it is in gaining a university education. The approach taken in the design of three transition units offered at Macquarie University adopts the position that what is viewed as plagiarism and other forms of malpractice should be recognised, at least in the early stage of study, as the beginning of a process where novices who are entering discourses communities and engaging in foreign practices have to grapple with new knowledge, unfamiliar language and at time implicit assumptions about their expected performance (Valentine, 2006, p. 97 in Elander et al 2009, p.158). In embedding the values and practices of academic honesty in first year units the initiation of the novice is integrated with their introduction to the academic and disciplinary literacy practices necessary for an emerging scholarly identity.

Developing scholarly practice

Traditionally what is known as ‘scholarship’ is conveyed with reference to “*a quality of the way academic work is or should be done*” (Brew, 2010, p. 108). The notion of scholarship is used to refer to the development of research capacities in academic staff. When the same qualities are demanded of students they are categorised as skill sets with enabling attributes and given a primarily instrumental role. If we want students to recognise and demonstrate scholarly practice these attributes must be embedded as constituents of all aspect of the research and learning. By initiating students into the communities of practice, into the discourses and guiding them as they engage in analysis and when critically reflecting on their interpretation and expression of knowledge students can begin to acquire a new identity as a scholar (Barnett & Napoli, 2008; Brew 2010).

Literacy practices, knowledge and dispositions to move through academic study need to comprehend a world beyond university and prepare students for discourses they will face on graduation, or as Duff (2007, p.3) defines it the 'after-life' where the entry to professional practice or vocational pathways is undertaken with some confidence in their ability to make adjustments to new settings, make informed choices and decisions and continue as lifelong learners founded on their values and sense of integrity; or create crisis and confusion at their next stage of transition (Duff, 2007, p. 13). This capacity is not merely a new skill set it means affording inculcating a disciplinary identity so that in addition to their identity as a scholar student begin to inform the emerging identity as a professional practitioner.

Developing a scholarly identity

Widdicombe (1998) refers to identity in a way that focuses on the context in which action, such as learning or research is performed by stating that "*identity is available for the use: something that people do which is embedded in some other social activity*" in Johnson and Watson, 2010, p.475). In other words identity is a product of the actions and the attributes evident in the performance of learning tasks. Whether conscious or unconscious a student's attitude to, and understanding of, academic integrity will be inseparable from it practice. It is reasonable to expect that process to evolve over time, consolidated through practice and guided by timely and relevance feedback. To take on this identity as scholar all aspects of the learning must be understood by the learner, feedback given sufficient to improve and opportunities to extend and apply the learning in new situations (Lea & Street, 1998). It is not sufficient to 'learn content knowledge' but to learn to think and act in ways to engage with, interpret, analyse, critique and integrating knowledges, or in presenting a synthesis of ideas and information then to construct and express these new understandings as a member of their learning community (Woodward-Kron, 1999, 2005).

Designing curriculum for scholarly practice

In attempting to bring this scholarly identity to life curriculum design must draw on five underpinning principles as enumerated by Myers and Nulty (2009). Curriculum must ensure resources and learning activities:

> (1) are authentic, real-world and relevant;
> (2) are constructive, sequential and interlinked;
> (3) ensure students use and engage with progressively higher order cognitive processes;
> (4) are all aligned with each other and the desired learning outcomes; and
> (5) provide challenge, interest and motivation to learn. (Myers & Nulty, 2009)

Yet meeting this set of criteria is insufficient for delivering a quality learning experience. The effectiveness of a program or unit of study is determined by evaluating the curriculum in terms of the intended curriculum, the enacted curriculum and the experienced curriculum (Billett, 2011, p.16). This type of evaluation frames a trilogy of roles and expectations that must be taken into consideration at each level. The principles informing curriculum design need to be clearly communicated first to teaching staff and then make explicit to students. This includes explaining the pedagogical choices and their rationale, sharing research and evidence and showing how elements of the unit are linked (Rust et al., 2010, p. 235).

The intended curriculum is documented in the unit guide where learning outcomes are enumerated and linked to assessment events. The standards of performance are clarified with rubrics or grading criteria. The enacted curriculum requires a careful consideration of the pedagogies that will facilitate the delivery of the unit as designed. It takes into account the capacity of staff, the sequence and time available and the use of resources to engage and challenge students as they develop and acquire knowledge. The experienced curriculum reflects

the students' perspectives based on their interpretation of the knowledge and practices taught and valued throughout the program.

The key to a fully realised curriculum is a measure of the extent to which the 'enacted' curriculum achieves its 'intended' objectives, and the extent to which students share this understanding. It is essential that staff share the mission and recognise rationale for the curriculum design, the integrated and recursive nature of core learning activities and the way each element adds to the overall learning experience and knowledge formation. So staff need to be involved with more than following the schedule, using resources and unpacking disciplinary knowledge. One approach that attempts to overcome lack of expertise is the Vygotskian based social constructivist approach. In this approach scaffolding is used to align all aspect of the curriculum so learners are engaged and guided along a pathway with expectations and tasks clearly mapped out. In this way learners gain entry to the knowledge and values of the community of practice (Rust et al 2010). Scaffolding at both macro and micro level is a approach designed to clarify the goals associated with linguistics competence and guides students through a sequenced approach to achieve task and adopting process so that will motivate and engage students in deep approaches to learning which can be applied and related to existing knowledge (Hammond, 2001, p. 32).

The experienced curriculum is tested by the level of engagement and capacity of student to demonstrate knowledge and perform successfully. The experience d curriculum gains feedback from students and their capacity to make informed choices, to recognise and value knowledge and knowledge practices and is revealed when students demonstrate a capacity to make improvements to their own work. When designing a unit it is essential to consider the student motivations and find ways to connect with their approach to the unit. Previous cohorts experiences and feedback can be used to identify motivating factors which may vary from the goal of achieving high grades or as preparation for a pathway, or to understand the Australian education sector, or to pursue future goal. Sadler (1989 in Rust et al p.234) identifies 3 tangible aspects of a curriculum that provides a positive learning experience for students. These are a) that the preparation and feedback given to students clearly communicates the standards and expectations, b) that students develop an ability to compare their work against these standards and c) that they are give opportunities to 'close the gap' between the standards and their performance.

While this information can easily be conveyed with assessment instructions, checklists and rubrics these are frequently given cursory attention by student. In addition to simply providing these guides in written form they are introduced at lectures, reviewed and discussed in tutorials, and reinforced with the use of models or learning activities. In that way criteria are clarified, good practice is modelled and attention is paid to the effect of approaches and choices. For instance a three level approach to reading and analysing questions and assignments tasks is taught in week 2 and the process is reinforced with each core learning activity and assessment. This includes an emphasis on planning, researching and managing tasks and reinforced by identifying a future assessment task and assigning core preparation activities. Feedback is given at both a class level to give some indication of what was generally done well or poorly. This feedback is done the week after the assessment so it is timely and can be utilised in following activities.

Academic literacy and the capacity for scholarship

Lillis & Scott (2007, p.7) raise elevate the role of academic literacy as an area of practice with its own specialised knowledge systems with an ideology basis enabling students to undergo a transformation as they engage with their discourse communities. This version of academic literacy overturns previous models which suggest it is student who are 'deficient' (p.89). This paradigm was used in framing the design of Academic Communication units as it emphasises the process of evolution where students change and develop within the environment, where

place and time are as essential to the learning process and the resources and pedagogies delivering the learning. It also gives greater emphasis to the value of linguistics resources for their contribution to sharing and expressing ideas, and through those exchanges shaping student's identity.

In this transformative process a shift occurs from 'normative' experience of the knowledge to transformative learning which allows the students to reflect on their own goals and experience (Woodward Kron, 2004, p.13) as they do their learning journey challenges them to resolve tensions , make meaning, utilise language resources needed to represent knowledge no longer as a novice (p.14-15) but undergoing the acculturation process needed to become a member of their learning community and reappraise their identity as an emerging scholar and demonstrated in overcoming one of the stumbling blocks, the a lack of identity as a writer (Curtis & Popal, 2011, p.40)

In this way unintentional plagiarism can progressively eliminated as the lack of awareness of what constitutes plagiarism, lack of competence in how to interpret and re present ideas and information, lack of understanding of the conventions used to acknowledge the ideas of others is are being systematically addressed. With improved levels of academic literacy and an ability to recognise appropriate language such as work choices and phrasing students are beginning to make meaning in ways that are accepted by their discourse community (Halliday & Hasan, 1985).

Curriculum design for the 'transition to first year' at Macquarie University

Macquarie University established an agenda for its 50th anniversary of operation by shifting its academic orientation by setting the goal of becoming a research intensive university (Macquarie University, 2010) Such a fundamental shift brings with it major changes to policy and strategy; and require a high level of involvement of staff to ensure the plans to achieve these goals are aligned and implemented (Reid & Marshall, as cited in Brew, 2009, p.96). As part of the process to achieving this alignment a review of the all undergraduate programs commenced in 2008 resulting in a the replacement of all existing programs and degrees with new ones commencing at the beginning of the 2010 academic year.

It is within this context that three new units were commissioned to support the transition to first year. The units have a specific mission to enhance academic literacy practices while introducing students to the culture and expectations of higher education. Late in the planning additional contextual objectives were added to this mission resulting in a three level focus. The first focus is on core aspects of academic literacy development to improve approaches to gathering information including reading, critical thinking, planning and constructing texts. The units apply scaffolding to sequence the stages of each task from an identification and analysis, to application and finally consolidating the learning in major assessment tasks. Each stage of the scaffolding an opportunity is provided to enhance students' understanding of the expectations of university level study and approaches to academic tasks. For instance by highlighting the need to preview and selection of sources it is possible to begin to discuss keeping accurate records of the information gathering process to use when completing assignments. An understanding of the content, structure, features and academic qualities of the texts are reinforced in activities such as developing a set of annotations, constructing summaries and paraphrases. The planning of an extended text affords an opportunity to outline the text, link the key arguments with the evidence selected from source, nominate particular items using in text citations accompanied by an accurate reference list. The process driven pedagogy emphasises the integrated nature of knowledge construction and the importance of planning a holistic outcome while attending to the essential elements.

The assessment process provides clarity mapping assessments against learning outcomes, and standards articulated through criteria in the form of rubrics. In addition tutors are encouraged to

provide feedback which is positive and instructive. The role of tutors and markers is to assist students to recognise their strengths and weaknesses, but importantly to encourage them to take responsibility for improving their performance by guiding them in this endeavour. Perhaps this should be considered an instance of academic integrity for program staff.

The second level of focus adopts a broad disciplinary perspective which begins the induction to the knowledge and knowledge systems, the conventions embedded in the genres and discourses. This aspect is facilitated with the choice of content in the form of readings and assessment tasks. Students are required students to engage with a wide range of sources drawn from academic and professional databases, including research papers, journal articles, reviews and opinion pieces, government or industry reports and news item. This is achieved in two ways, a set of readings associated with the topic are supplied to provide a cross section of genres. These texts are used as resources for learning tasks to develop reading strategies, to analyse the way language is used to share knowledge in disciplines, to examine the structure of genres, to identify the way evidence is incorporated into texts and the use of voice and referencing systems. These texts are also used as the basis for exploring the themes and topics by providing fuel for discussion around the key concepts, issues and perspectives; they also reveal the way language is used to create logical reasoning and embed assumptions, privilege certain knowledge and apply certain conventions to construct genres.

If students are to respect and apply the disciplinary ‘ways of knowing’ they need to not only identify these language and knowledge systems but be guided in the making appropriate choices when applying them. Familiarity with the different genres and sources, including the complex world of electronic access and the internet, is fostered with an initial information search task exploring the library portal and later in the major assignment with further information search required to complete the assignment. In both cases the importance of the recording of the research process and the need for accurate and complete referencing is reinforced with specified elements of the task including the preparation of a series of annotations, a process summary and reflection on the selection of resources included in the final documentation. The process for conducting the research is scaffolded to address the ‘how, what, when, where’, and importantly the ‘why’ disciplines act in certain ways. This informs the learning journey and begins the path to scholarship.

The third level addresses the units’ roles as designated ‘people’ units at Macquarie University. Since the introduction of new undergraduate programs in 2010, all students must select a series of electives as part of their course completion. These are ‘Planet’ units focusing on the physical environment and quantitative knowledge; ‘PACE’ units where students engage with the community; and ‘People’ units which deal with their disciplines and social context. The three transition units are ‘People’ units and each applies the disciplinary perspective to relevant social contexts. For example in the unit Academic Communication in Science students must link the role of scientists or the application of scientific knowledge to issues and concerns in contemporary society. This may include issues in research ethics, conducting field trials with farmers; health communication by analysing the efficacy of media campaigns or immunisation protocols; presenting case studies on environmental issues associated with commercial aquaculture, i.e. fish farms; or the influence of social media on the political process.

Similarly, in the unit Academic Communication in Business and Economics students must apply a micro economic principle to the conduct of business for a target sector of the community, or apply economic thinking to social policy for the benefit of broader society, for example the relationship between economic well being and health; or the role of government in the supply and demand of housing for low income families. In the third unit Academic Communication in the Social Sciences and Humanities students research the policy and strategies adopted for ‘Social Inclusion’ by investigating one of the four key themes ‘work, education, social connection or having a voice’. The broad range of issues, target populations

and institutions as potential sites for investigation ensure the cohorts provide a forum for shared knowledge and contextualise future roles as practitioner and as citizen.

On reflection

If academic integrity is central to academic culture and it needs to be incorporated into all aspects of learning as an institution-wide philosophy of practice and explicitly developed through learning, teaching and assessment practices. On reflection the positive feedback from students about their transition to academic study could be said to be based on an introduction to appropriate approaches to academic literacy and discourses at the earliest possible point in their program of study. The initiation provided students with a capacity to engage in effective and critical reading and thinking; it progressively enabled them to develop an identity as a writer by providing opportunities to express their own ideas and interpretations as well as supporting their position with information from other sources. Guiding their academic literacy development was an explicit mapping of the expectations, the practices and values of their disciplinary community of practice. In combination these elements can be seen to have assisted students to make are more successful transition.

Yet it is the less tangible measures of success which perhaps need further investigation. Unfortunately, the transformation process seemed to some students to take a little too long which lead to anxiety and fear of failure, and in some cases students found it difficult to find a balance between presenting their own ideas and using evidence effectively. While measures of plagiarism and malpractice were very low, in some cases creativity and lack of evidence created a different problem. In cohorts with non native speakers this problem is exacerbated due to the lack of language resources. In some local students changing practices and approaches threatened their current identity as a successful student and this meant resistance to new ways of approaching learning.

One piece of informal feedback given to me frequently by students is that they are grateful to have been challenged to look at their own approach to learning and their responsibility as a member of the class, or peer group. This feedback has at time been given during the semester and linked to new confidence in approaching other units assessments, at times it comes at the end of semester when things really ‘fall into place’ and they can see where their actions and decisions taken them. Even more rewarding is coming across students after they have completed the unit and they tell me how confident they are with their studies and how they are applying their skills. From this feedback it is impossible to ‘unpick’ their knowledge and practices to quantify the extent to which academic honesty and integrity can be measured as discrete practice. Yet a review of the final integrated tasks and groups assignments reveal a high level of compliance with key aspects such as incorporating evidence and referencing, in equal contribution to the group products and an increased capacity to comment on ideas rather than just paraphrase texts. These capacities reveal the beginning of independent and collaborative approaches to scholarly practice.

References

Barnett, R. & Di Napoli, R. (Eds.) (2008). *Changing identities in higher education: Voicing perspectives.* Milton Park: Routledge.

Billett, S (2011). *Final report on curriculum and pedagogic bases for effectively integrating practice-based experiences*. [viewed 7 July 2011] http://www.altcexchange.edu.au/group/integrating-practiceexperiences-within-higher-education

Brew, A. (2009). Academic development in a global context. *International Journal for Academic Development*, 14(2), 95-97. http://dx.doi.org/10.1080/13601440902969934

Brew, A. (2010). Transforming academic practice through scholarship. *International Journal for Academic Development,* 15(2), 105-116. http://dx.doi.org/10.1080/13601441003737618

Brew, A. & Boud, D. (1995). Teaching and research: Establishing the vital link with learning. *Higher Education,* 29, 261-273. http://www.jstor.org/stable/3447715

Curtis, G. J. & Popal, R. (2011). An examination of factors related to plagiarism and a five-year follow-up of plagiarism at an Australian university. *International Journal for Educational Integrity,* 7(1), 30-42. http://www.ojs.unisa.edu.au/index.php/IJEI/article/viewFile/742/554

Duff, P. A . (2007). Problematising academic discourse socialization. In H. Marriott, T. Moore & R. Spencer-Brown (Eds.), *Learning discourse and the discourses of learning*. Clayton, Vic: Monash University Press.

Elander, J., Pittam, G., Lusher, J., Fox, P. & Payne, N. (2010). Evaluation of an intervention to help students avoid unintentional plagiarism by improving their authorial identity. *Assessment & Evaluation in Higher Education*, 35(2), 157-171. http://dx.doi.org/10.1080/02602930802687745

Halliday, M. A. K. & Hasan, R. (1985). *Language, context, and text: Aspects of language in a social-semiotic perspective.* Geelong: Deakin University.

Hammond, J. (Ed.) (2001). *Scaffolding teaching and learning in language and literacy education.* Newtown, NSW: Primary English Teaching Association.

Lave, J. & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.

Lea, M. R. & Street, B. V. (1998). Student writing in higher education: An academic literacies approach. *Studies in Higher Education*, 23(2), 157-172. http://dx.doi.org/10.1080/03075079812331380364

Lillis, T. & Scott, M. (2007). Defining academic literacies research: Issues of epistemology, ideology and strategy. *Journal of Applied Linguistics*, 4(1), 5-32. http://www.equinoxjournals.com/JAL/article/viewArticle/4563

Macquarie University (2010). *Review of Academic Programs: Rationale: Why is a Review of Academic Programs necessary*? [viewed 2 July 2011] http://www.mq.edu.au/learning-and-teaching/reports/ugrad_curriculum_renewal.html

Mc Gowan, U. (2005). Does educational integrity mean teaching students NOT to 'use their own words'? *International Journal for Educational Integrity*, 1(1). http://www.ojs.unisa.edu.au/index.php/IJEI/article/viewFile/16/6

Meyers, N. & Nulty, D. (2009). How to use (five) curriculum design principles to align authentic learning environments, assessment, students' approaches to thinking and learning outcomes. *Assessment & Evaluation in Higher Education,* 34(5), 565-577. http://dx.doi.org/10.1080/02602930802226502

Moore, T. & Hough, B. (2007). The perils of skills: Towards a model of integrating graduate attributes into the disciplines. In H. Marriott, T. Moore & R. Spencer-Brown (Eds.), *Learning discourse and the discourses of learning* (pp.02.1-02.12). Clayton: Monash University.

Rust, C., O'Donovan, B. & Price, M. (2005). A social constructivist assessment process model: How the research literature shows us this could be best practice. *Assessment & Evaluation in Higher Education,* 30(3), 231-240. http://dx.doi.org/10.1080/02602930500063819

Strathern, M. (2008). Preamble to knowledge identities. In R. Barnett & R. Di Napoli (Eds.), *Changing identities in higher education: Voicing perspectives* (pp.9-25). Milton Park, UK: Routledge.

Taylor, P. (2008). Being an academic today. In R. Barnett & R. Di Napoli (Eds), *Changing identities in higher education: Voicing perspectives* (pp. 27-39). Milton Park, UK: Routledge.

Thompson, C. (2005). 'Authority is everything': A study of the politics of textual ownership and knowledge in the formation of student writer identities. *International Journal for Educational Integrity,* 1(1). http://www.ojs.unisa.edu.au/index.php/IJEI/article/viewFile/18/8

Woodward-Kron, R. (2005). The role of genre and embedded genres in tertiary student's writing. *Prospect,* 20(3), 24-41. http://www.ameprc.mq.edu.au/docs/prospect_journal/volume_20_no_3/20_3_3_Woodward-Kron.pdf

Woodward-Kron, R. (1999). Learning the discourse of a discipline: The nature of the apprenticeship. *Proceedings HERDSA Melbourne 1999.* 12-15 July, Melbourne. http://www.herdsa.org.au/wp-content/uploads/conference/1999/pdf/Woodward.PDF

Gaynor, F. A. (2011). Academic integrity and the transition to higher education: Curriculum design for initiating a scholarly apprenticeship. In *Educational integrity: Culture and values. Proceedings 5th Asia Pacific Conference on Educational Integrity*. The University of Western Australia, 26-28 September. (pp. 30-38) http://www.apcei.catl.uwa.edu.au/procs/gaynor.pdf