

2018

Embedding external referencing of standards in higher education: collaborative relationships are the key

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Publication Details

Sefcik, L., Bedford, S. Bernard., Czech, P., Smith, J. & Yorke, J. (2018). Embedding external referencing of standards in higher education: collaborative relationships are the key. *Assessment and Evaluation in Higher Education*, 43 (1), 45-57.

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Abstract

External referencing of assessment and students' achievement standards is a growing priority area within higher education, which is being pressured by government requirements to evidence outcome attainment. External referencing benefits stakeholders connected to higher education by helping to assure that assessments and standards within courses are appropriate and comparable among institutions. External referencing takes many forms, which have different resourcing requirements, outcomes, and operational strengths and challenges. This paper describes the External Referencing of Standards (ERoS) approach developed, tested and adopted by a university consortium. EROS draws on the strengths of existing methodologies to produce an evolved model that is effective, efficient, transparent and open, capability building and sustainable. The model enables participants to communicate directly and construct peer relationships, and findings suggest this is a significant design strength. The process facilitates capability building, such that participants garnered insights valuable to enact quality assurance and enhancement of existing courses, and fosters connections that facilitate collaboration and peer-learning. EROS successfully used open source collaborative tools to review work samples, which can be used to benchmark costed systems.

Keywords

collaborative, relationships, key, external, referencing, standards, higher, education:, embedding

Disciplines

Arts and Humanities | Social and Behavioral Sciences

Publication Details

Sefcik, L., Bedford, S. Bernard., Czech, P., Smith, J. & Yorke, J. (2018). Embedding external referencing of standards in higher education: collaborative relationships are the key. *Assessment and Evaluation in Higher Education*, 43 (1), 45-57.

Embedding external referencing of standards into higher education: collaborative relationships are the key

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Acknowledgements

We acknowledge the work of the ‘Assuring Learning and Teaching Standards through Inter-Institutional Peer Review and Moderation’ Office for Learning and Teaching project in providing many of the resources and methods drawn on for the ERoS project. We also acknowledge the work of Mark Freeman (Achievement Matters) and Group of Eight Quality Verification System as these projects have influenced our thinking. We thank our participants for their valuable contributions, and acknowledge the support given to us by our respective institutions.

Disclosure statement

No potential conflict of interest was reported by the authors.

Ethics Approval

Ethics approval for the research was sought but subsequently not required.

Word count 7204

Lesley Sefcik’s Publications

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External referencing of assessment and students' achievement standards is a growing priority area within higher education, which is being pressured by government requirements to evidence outcome attainment. External referencing benefits stakeholders connected to higher education by helping to assure that assessments and standards within courses are appropriate and comparable among institutions. External referencing takes many forms, which have different resourcing requirements, outcomes, and operational strengths and challenges. This paper describes the External Referencing of Standards (ERoS) approach developed, tested and adopted by a university consortium. EROS draws on the strengths of existing methodologies to produce an evolved model that is effective, efficient, transparent and open, capability building, and sustainable. The model is unique in that participants communicate directly and construct peer relationships, and findings suggest this is a significant design strength. The process: 1) facilitates capability building such that participants garnered insights valuable to enact quality assurance and enhancement of existing courses, and 2) fosters connections that facilitate collaboration and peer-learning. EROS successfully used open source collaborative tools to review work samples, which can be used to benchmark costed systems. The EROS model, findings of the implementation and its uptake, and principles and processes for future action are discussed.

Keywords: inter-institutional; peer review of assessment; student achievement standards; quality enhancement and assurance

Introduction

There is a long standing and global interest in the assurance of academic achievement standards in educational systems. Institutions must assure the quality and integrity of their qualifications, and such evidence is important to a diverse group of stakeholders including employers, parents and students. Domestic and, increasingly, globalised (and highly contested) external pressures for accountability serve as powerful drivers; the effects of which are experienced at a national, institutional and local level (Yorke and Vidovich 2016).

While emphasis elsewhere has been on external examining (United Kingdom - The Quality Assurance Agency for Higher Education) and standardised testing (Organization for Economic Cooperation and Development – Assessment of Higher Education Learning Outcomes), Australia has focussed on consensus building around course learning outcomes as a way of cultivating confidence in achievement standards (Deane and Krause 2013; Bloxham et al. 2015). This is being accomplished through a process of ‘external referencing’.

External referencing describes a process that benchmarks the assessment methods and quality of student work samples against those from comparable institutional courses to raise confidence for students, universities, employers and the general community (Watty et al. 2014). This requires the participation of external academics with subject matter familiarity who review and comment upon final year assessments demonstrating graduate level course learning outcomes (Booth, Beckett, and Saunders 2016). It also can be described as inter-institutional or external peer review of assessment.

External referencing has been attracting national and international interest as a sustainable and effective way of benchmarking the sector and improving the quality of

university courses (Booth 2013; Bloxham et al. 2015; Barrie et al. 2014). The requirement for external referencing has been built into Australian legislation from 2017 onwards. Australian higher education providers must meet the Higher Education Standards Framework (HESF 2015) requirements, of which Sections 5.3.1, 5.3.4b and 5.3.7 are particularly relevant.

(5.3.1) All accredited courses of study are subject to periodic (at least every seven years) comprehensive reviews that are overseen by peak academic governance processes and include *external referencing* or other benchmarking activities.

(5.3.4) Review and improvement activities include regular *external referencing* of the success of student cohorts against comparable courses of study, including:

- b. the assessment methods and grading of students' achievement of learning outcomes for selected units of study within courses of study.

(5.3.7) The results of regular interim monitoring, comprehensive reviews, *external referencing* and student feedback are used to mitigate future risks to the quality of the education provided and to guide and evaluate improvements... (HESF 2015). (*Emphasis added*)

Quality assurance and enhancement processes should be enacted by educational providers because they are inherently valuable to higher education stakeholders.

Accepting this premise enables a move from a nominal compliance-based response to a more nuanced values-based approach. External referencing can support the assurance and enhancement of quality in a number of ways. First, it benefits teaching academics by helping to assure that final year (and sometimes earlier year) assessments and standards within their courses are comparable to other institutions. In particular it

examines whether students' performance is being suitably appraised by appropriately designed assessment tasks that are aligned to the graduate learning outcomes.

Secondly, the broader academic discipline benefits from external referencing because it facilitates shared understanding necessary for calibration of standards (Bloxham et al. 2015). External referencing also helps to enhance course quality by providing useful feedback to course leaders, and facilitating collaborative learning for staff through calibrated understanding of assessment standards (Sadler, 2013). External referencing complements internal moderation and other activities within an institutional quality assurance/enhancement framework.

Finally, students, employers and the wider community benefit from external referencing because it helps ensure that assessment tasks are relevant and consistent with disciplinary expectations. Students benefit because they develop skills that facilitate work place readiness and future employment flexibility (Scott 2008). The external referencing process also provides reassurance to employers and the wider community that standards are being upheld, thereby supporting graduates' future professional success (Sadler 2013).

Models of Practice

The external referencing process takes a variety of forms, each having different resourcing requirements and outcome types. In Australia, several external referencing approaches have been initiated, many funded by the Australian Learning and Teaching Council [later the Office for Learning and Teaching]. These projects arose in the period following the *Review of Australian higher education* (Bradley et al. 2008), which highlighted standard slippage at a national level, calling for 'a set of indicators and instruments to directly assess and compare learning outcomes; and a set of formal statements of academic standards by discipline along with processes for applying those

standards' (Bradley et al. 2008, 137). However, these policy aspirations were weakened due to stiff opposition from the higher education sector, to be replaced by projects focusing on peer review.

The Group of Eight research intensive universities responded by initiating the Quality Verification System (Group of Eight, 2013). This method required reviewers to evaluate grades assigned to previously marked student work taken from a stratified random sample across five different grade bands (Deane and Krause 2013; Group of Eight, 2013). A second consortium, the Teaching and Learning Standards Project opted for stratified random sample of student assessments across four grade bands; however, reviewers in this project were required to grade *clean copies* of sampled assessment tasks (Deane and Krause 2013; Krause et al. 2013, 2014). A third method was developed by Achievement Matters: External Peer Review of Accounting Learning Standards, which involved a double-blind process focused on consensus building on students' achievement using randomly sampled student work drawn across all possible grades (Deane and Krause 2013; Watty et al. 2014). These methodologies each attempt to scrutinise the strength and reliability of students' attainment of learning outcomes; yet, differ slightly in their approach with regard to review depth, breadth, and outcomes produced (Deane and Krause 2013). For a more comprehensive review of existing models of external referencing see Bedford et al. (2016).

These approaches sought to optimise efficiency and effectiveness appropriate to the aims of the project. However, between 2014 and 2016 the Australian financial landscape changed, and funding sources for this work dramatically decreased. This necessitated a revisit of existing models to find a cross-institutional approach that would be efficient, cost-effective and sustainable.

ERoS drew on the strengths of existing models and research to establish five aspirational aims, which informed the project's approach and which articulated the criteria for evaluating its success:

- (1) Enables academic standards of student work to be calibrated across institutions particularly for disciplines lacking professional accreditation;
- (2) Meets higher education standards requirements while contributing to both quality enhancement and quality assurance of student achievement standards;
- (3) Provides an open and transparent process, which supports knowledge sharing and capacity building of academics;
- (4) Strengthens cross-institutional collaboration to support future sustainable practice in external referencing;
- (5) Efficiently and effectively achieves the objectives above, and has minimal administrative costs, uses online collaborative tools, and provides self-sufficient resources.

The EROS Process and Methods

The four collaborating universities were: Curtin University, Queensland University of Technology, Royal Melbourne Institute of Technology, and University of Wollongong. The universities began by agreeing to a memorandum of understanding to assure the appropriate use and confidentiality of documents shared. Ethics approval for the research was sought and subsequently not required. The EROS methodology utilised freeware to collate, discuss, and review student work samples. An open source shared drive facilitated documentation storing and sharing, with access limited to EROS

administrators to protect confidentiality. Open source video web conferencing and emails were used for communication among the EROS administrators and participants.

A condensed version of the eleven-step process is provided here; for full details see Bedford et al. (2016, 21).

- (1) Expression of interest invitation was distributed to leaders identified for participation based on teaching final year units at each institution.
- (2) Comparable leaders were tentatively matched (in either a dyad or triad formation, Table 1) and the suitability of the match was examined through sharing of unit outlines.
- (3) When a suitable match was found, participants signed a participation agreement with confidentiality and conflict of interest rules outlined within.
- (4) De-identified and previously assessed student work samples were selected using stratified random sampling based on final marks submitted. Samples were selected within the sound (credit, distinction or high distinction), minimal (low pass), and fail (high fail) achievement of outcome categories.
- (5) An initial web conference was conducted to guide leaders through the documentation, and to confirm the match was appropriate.
- (6) Leaders exchanged student work with necessary supporting documentation (assessment rubrics, course and unit learning outcomes, external referencing points, e.g. national disciplinary standards, etc.).
- (7) External referencing of student achievement standards began, resulting in a judgement about the appropriateness of assessment practices and the intended outcomes as evidenced by the assigned grade. A draft report was provided within an agreed upon timeframe.
- (8) Administrators checked the draft reports for appropriateness before sharing with partners, and a final web conference was scheduled.
- (9) The final web conference was conducted to allow participants to discuss the draft report findings.

(10) Participants were given one week to provide the final report to the ERoS administrator with priorities for implementation outlined within.

(11) Analysis of external feedback received then occurred at the home institution.

Table 1 depicts the breakdown of disciplines involved in ERoS referencing.

Table 1. ERoS referencing structures by discipline.

Structure	Discipline
	Business (Capstone)
	Diploma of Languages (French)
Dyad	Fashion and Textiles
	Marketing (Strategic)
	Psychology
	Education (Professional Studies)
Triad	Nursing (Professional Studies)

Evaluation

ERoS adopted a mixed methods approach to evaluate the methodology, processes and outcomes using a blend of qualitative and quantitative data (Creswell 2012). Methods included focus group interviews and documenting the time required to complete the process with pilot participants.

Focus Groups

Semi-structured interviews and focus groups were conducted by the institutional administrators at the end of the pilot phase with 14 academic and professional staff consulted. The interview focused on questions that elicited participants' perspectives on

the approach, processes, supporting information and report templates. Participants were asked for feedback on the review process, such as:

- What worked well or could be improved?
- How was the report useful in suggesting quality enhancements of assessment and student achievement standards?
- How did the process enable you to document the relevant comments you wished to make?
- How did the process support independent comment?
- Did you have sufficient quantity and quality of data to make your decisions?
- Was the external referencing process useful from the perspective of your personal and professional development?
- Was having interactions between collaborating staff designed into the process helpful?
- Would you want more or less collaborative interactions in the future?
- Do you think there may be challenges within different learning contexts?

The data from these interviews and focus groups was analysed using a modified SWOT (Strengths, Weaknesses, Opportunities, Threats) themed analysis to identify common themes for planning and evaluation purposes (Humphrey 2005; Helms and Nixon 2010). SWOT analysis has evolved over time and in contemporary settings it is often being used ‘in strategic planning meetings and organizational-wide planning’ (240) to begin the ‘strategy planning process’ (Helms and Nixon 2010, 234). The SWOT themes identified from the focus group and interview feedback were reviewed by the ERoS project team and findings informed the refinement of the processes and tools.

Recording Time Requirements

Participants also completed timesheets that recorded the hours involved in different aspects of the process. Time requirements were recorded when both requesting and conducting external referencing.

Time recorded for:

- preparation of information, resources and documentation for review
- selection and de-identification of work samples
- communication between collaborating universities
- reading review documentation
- preparation and finalising reports
- responding to reports, addressing the recommendations
- any other tasks undertaken in the process

Overall means and standard deviation for timesheet data was calculated by institution and referencing structure (dyad or triad). Analysis of time required by referencing structure was used to estimate the overall institutional cost of the processes to assess sustainability. Institutional cost estimates for the ERoS process is presented in Bedford et al. (2016) and is not discussed further here.

Results and Discussion

Effectiveness of the process

A key finding of ERoS was that the methodology and supporting templates were well understood and utilised; however, most reviewers did require guidance and would have valued exemplars on how to complete the review forms. To ensure useful results from external referencing, it was important that participants recognised that the focus of referencing was to connect the assessment and unit learning outcomes with the broader course learning outcomes for greater assurance of learning (Deane and Krause 2013). It

also was essential to clarify that academics were not referencing the consistency of grades for assessments; they were referencing the suitability of the assessment to allow students to achieve the learning outcomes and evidence these. The initial web conference was used to clarify and communicate this focus.

Participants suggested that it would have been useful to have a sample of *all* of the assessments for the units for reference. They felt that this would have conveyed better course context to situate the assessment pieces.

‘I think having enough information at the very beginning is crucial and it’s better to have more than less, basically. Obviously, unit outlines, assessments, marking guides, etc., but anything else related is useful... having all assessments there if you want to look at it, you can if you need to, but there is no onus that you have to.’

Providing samples of all assessment tasks with associated rubrics would have provided greater breadth of information about the unit while focus could remain on one assessment task for referencing; this would help to better assure students’ achievement of learning outcomes through more comprehensive contextual understanding of the course. However, participants were conscious of the potential workload implications (on both ends) of providing this level of information.

Participants *were* initially concerned about the potential time commitment required for the process. However, once the process actually began all felt that it was effective, efficient and not onerous. One participant stated: ‘It did seem onerous at first, but once you got into it, it was fine. It was quicker than I thought it was going to be.’

It took academics an average of 14.7 (\pm 4.9 sd) hours of work to be involved in an external referencing dyad structure and approximately 18.5 (\pm 8.5 sd) hours of work when involved in a triad (Bedford et al. 2016). Triads generally

required more time to accommodate preparing and referencing of two review reports compared to the dyad structure. However, the range of time required varied greatly between universities and disciplines. This seemed largely the result of differences in accessibility to referencing materials. Institutions with easily accessible review samples, and supporting materials in electronic format, generally reported less time for the process. For example, the Fashion and Textiles dyad using physical artefacts required significantly more time to complete the process than all other discipline areas, which generally utilised electronic submissions. Participants suggested that a minimum of a full day should be allotted for workload allocations to accommodate the process.

As external referencing collaborations expand to accommodate the more stringent HESF requirements (HESF 2015), the workload will inevitably increase. Workload requirements have been flagged as the largest potential barrier to implementing comprehensive external referencing programs (Deane and Krause 2013) and this is also true for the ERoS process. One participant commented, ‘I think it definitely needs to be in the workload because that highlights the importance of it, and it makes you allocate time to it.’ Another participant expanded upon this by stating:

‘As a pattern, we are being asked to do more and more of this sort of stuff, without getting any extra time to do it in, and things have to be let go because you can’t do everything ...if it is important and you want us to do it then, you have to account for it [in the workload].’

Although ERoS demonstrated that there are clear workload implications for the academics involved, administrative responsibilities required the largest time input. The matchmaking process proved onerous with difficulty in connecting suitable participants, and complexity in deciphering institutional course content. Even at the course level, matchmaking is challenging because it is difficult to identify and access key leaders

necessary to efficiently and effectively match institutional courses. Other administrative responsibilities such as: training, organising the memorandum of understanding agreement, coordinating meetings, reviewing reports, checking redaction, and taking information through the reporting process (i.e. closing the loop at the end) resulted in a substantial administrative time commitment. Participants were certainly aware of this and indicated that, ‘there is a definite need of a coordinator for the process.’

To help alleviate some of the hefty administrative load, it is recommended that academics provide a list of suitable referees to the institutional coordinator; similar to the process well established within the peer reviewed journal community. Another suggestion would be to situate this process as part of comprehensive course review (such as that required for professional accreditation) which is already firmly established within university systems (Barrie et al. 2014).

ERoS methodology encourages leaders to foster a shared understanding of the course learning outcomes and assessment methods; and also to reflect on the process used to achieve those goals. One participant commented: ‘I must say it was very educative for me, because I am unit coordinator [leader], not course coordinator [leader], going back and finding this stuff and then actually interpreting and working out how it all fit together.’ Participants expressed the opinion that unit leaders would receive the most benefit from the process due to course leader time constraints arising from referencing multiple units within a course, and a lack of in depth knowledge of the units being referenced. Participants suggested that it was more effective for unit leaders to share information garnered with the course leader post hoc. This information could then jointly be used to facilitate quality enhancement of the course and unit.

Data evaluation revealed both positive and negative aspects of dyad and triad structure. The benefit of the dyad was that the structure was straight forward, therefore

meetings and their administration was streamlined. In some cases, dyads taught the same unit in a similar way. Although dyad participants found the process beneficial, they indicated that having a broader scope would have been useful. When referring to the close dyad match, one participant commented, ‘...we were such experts in our field that we sort of didn’t look, I guess, externally, [i.e. beyond the matched unit] whereas having someone come in completely external [with experience in different units] may have provided a better perspective.’

Another potential challenge of using a dyad structure is the possible perceptions of ‘back-scratching’ that may result (Stensaker, Brandt, and Solum 2008). For example, some critics of the UK external examining structure claim that self-selected partners may be less critical of their colleagues (who are reciprocally responsible for reviewing their work) and therefore may lack accountability (Stensaker, Brandt, and Solum 2008).

Both of these issues would be less likely to occur with a triad external referencing structure; however, administrative costs were increased because meeting organisation proved challenging given pressures on academic’s time and time zone differences. Triad academics also reported that keeping track of paperwork from two different institutions proved complicated. However, they did find that it was extremely useful to have made the connections between the universities, and often the triad discussion seemed to be more candid and in depth compared to that of the dyads. One participant commented: ‘It was interesting, because they both came up with different things when they reviewed the unit.’ Another stated, ‘I think it [triad structure] sort of widened out our perspectives...rather than that tight focus on exact same units with really similar outcome content. I think it was better having the broader perspective.’ Participants suggested that it was not necessary for the units to exactly match; they benefited from the process even if there were disciplinary differences. Hence, there

seemed to be greater quality enhancement development for triad academics as they could calibrate, and take from, *two* standards in relation to their own.

ERoS findings also demonstrate that efficient communication and shared understanding about achievement standards between small groups *can* be effectively achieved through the use of free, open-source technology. Free video web conferencing software effectively enabled all online meetings, and free online storage facilitated sharing of large files, such as video assessments, which would not have been possible by email. The importance of web conferencing to provide a forum for understanding the process is highlighted by one participant's focus group comments:

‘They [the web conferences] were crucial for me. Definitely the first one when you actually met them and sorting out those expectations at the beginning, because as you know the paperwork can be viewed in different ways. So having that clarity meeting at the very beginning was probably the most important aspect.’

ERoS opted for an open system since a *truly* blind peer review process is difficult in Australia because 1) it has a close-knit and increasingly mobile academic workforce, 2) often only select institutions offer a particular course of study and 3) authentic assessment tasks and students' responses to these may refer to aspects of the local context, which may enable the institution to be identified.

Additionally, the depersonalised nature of blind peer review does little to improve teaching and learning quality; whereas fostering relationships builds trust – a key component of a more authentic way of assuring and enhancing teaching quality (Hoecht 2006). Open peer review allows both authors and reviewers to be known to each other and is used ‘...as a way to induce transparency in the scholarly communication process and speed up the process of vetting new work’ (Lee et al. 2013, 11). Lee et al. (2013) suggests that this transparent process makes reviewers more ‘...accountable and sensitive to their own forms of partiality’ (11) as well as allowing

the community to contextualise the content of the review. In light of this, ERoS, participants communicated directly and constructed peer relationships throughout the process, and the findings suggest that this is a significant design strength.

The strength of the ERoS process is *dependent* on participant communication and relationship building (Price et al. 2008); and ERoS administrators act as facilitators. The philosophy of building cross-institutional networks and a culture of collaboration has been nurtured by the Australian national teaching and learning grant scheme. The recent demise of national project funding makes it increasingly important to find new opportunities for cross-institutional exchange of ideas and critique of teaching and learning practice. The collaborative and reciprocal nature of ERoS aims to build on, continue, and strengthen this collaborative culture, and this was recognised by participants such that one stated that the ERoS process ‘...helped build relationships for the purpose of the review and for future collaborations - which we will do.’

The approach recognises the professionalism of academic staff involved who value the opportunity to calibrate and review standards with their peers. It also recognises that critiques of standards, particularly negative critiques, may reflect poorly on academics. How these reviews are received by individuals and course teams will depend on how institutions use review outcomes. If outcomes are seen as opportunities for quality enhancement and the actions developed in response to reviews are rewarded and supported, then it is more likely academics will engage openly and positively in the external referencing process.

Capability building

The ERoS process facilitates capability building for the academics involved through peer learning and aspects of social moderation; which in turn develops a ‘community of

practice'. Capability building in this context refers to professional development of participating staff, and of the discipline 'communities of practice' related to external referencing within higher education. The term 'community of practice' can be broadly defined by three characteristics: a shared domain of interest, a community of practitioners that help one another, and resources or learning that is shared, such that 'communities of practice are formed by people who engage in a process of collective learning in a shared domain' (Wenger 2011, 1). Communities of practice work together to understand and solve problems, share experience and information, map knowledge and identify information gaps, and coordinate learning to address shortfalls in understanding (Wenger 2011).

For example, the aim of capability building is to assure and enhance the quality of courses through sustained strengthening of the knowledgebase and problem solving capabilities of the academics and institutions involved, which is in the general interest of the public (Dill 2000; Virji, Padgham, and Seipt 2012). Virji et al. (2012) succinctly describes the crux of capacity building, which is synonymous with capability building in this context and to which EROS subscribes:

'it must be a long-term endeavor that strengthens institutions and builds human resource capabilities on an end-to-end basis that not only addresses capacity gaps in knowledge generation and sharing but also in the processes that catalyze efforts to move from knowledge to action' (2).

This is accomplished through 'knowledge generation, sharing and informed action' (Virji, Padgham, and Seipt 2012, 4). We contend that the EROS process facilitates these three important aspects of capability building and was succinctly described by one participant as a '...useful process, reassuring and upfront.' This constructive impact on capability building result also has been found in the Quality Verification System,

Teaching and Learning Standards project, and Achievement Matters: External Peer Review of Accounting project (Deane and Krause 2013).

Capability building was shown to be well evidenced and highly regarded by those involved in ERoS, especially for those lacking similar experiences – e.g. through external accreditations (Barrie et al. 2014). This was commented on by one participant who stated, ‘engagement with the other academic staff was very useful, especially for early career academics.’ This established network may facilitate future opportunities to collaborate, which could positively impact course and teaching quality. One participant commented that, ‘...professionally it is interesting to have exposure to the other universities and units. It encourages co-authoring on the scholarship of teaching’ and another commented that they were ‘...interested in continuing the work ... as an ongoing relationship’. In both the dyad and triad cases, the academics found that the peer network developed through the referencing process to be extremely beneficial and in some cases these professional relationships continued beyond the life of ERoS.

Social interaction among moderators, often termed social moderation, facilitates greater consistency and quality assurance in assessment and is a key method by which an understanding of academic standards is acquired (Sadler 2011; Crimmins et al. 2016; Watty et al. 2014). Watty et al. (2014) contend that social interaction, peer learning and reflection is foundational to the quality assurance process. Participants consistently agreed that the ERoS process gave them insights valuable to enact quality enhancement of their existing courses. Unit leaders proposed using the feedback received to: foster communication with course leaders, update unit and course learning outcomes, and develop new assessment items. The participants also placed a very high value on the positive reinforcement of their assessment strategy garnered from the external referencing process.

Bloxham et al. (2015) suggests that it is necessary to foster shared understanding of achievement standards through calibration for effective external referencing to be achieved. This social moderation/calibration is demonstrated within the ERoS methodology wherein academics have an initial ‘moderation’ meeting to improve understanding of the threshold learning standards before the external referencing commences, then finish with post-referencing discussions (Crimmins et al. 2016). Pivotal discussion and feedback often centred on the assessment rubric which articulated the performance standards against which the student achievement standards could be evaluated. This type of discussion is imperative to help assure consensus and consistency on what constitutes standard achievement (Watty et al. 2014).

The ERoS process reflects many of the key moderation objectives discussed by Bloxham et al. (2016), which are related to equity, justification, accountability and community building (642). Bloxham et al. (2016) also suggests that ‘internal moderation uses institutional processes to test the quality of assessment and standards, whereas external moderation contributes to that process but also seeks to align quality with national standards’ (639). We found this to be consistent with the ERoS approach; yet interestingly, many of the participants commented that this was the first time that someone had reviewed their assessment – indicating that colleagues were not necessarily routinely participating in internal moderation processes. Another serendipitous finding was that external referencing brought together *internal* institutional participants thereby improving *internal* collaboration. Bloxham et al. (2016) concludes that one of the critical factors in ‘achieving appropriate, consistent and fair standards’ is having robust internal pre-teaching moderation embedded into the learning design and assessment process (649). We agree and also suggest that to effectively assure and enhance the quality of student learning, both internal and external

moderation processes need to be consistently incorporated into the teaching and assessment process.

Through peer learning and a process akin to social moderation, the ERoS methodology provides capability building and aids in developing disciplinary ‘communities of practice’, which benefits the teaching academics involved in the process (Crimmins et al. 2016; Adie, Lloyd, and Beutel 2013). This in turn, results in greater enhancement and assurance of course quality, which is beneficial to all stakeholders. We also support the idea that this collaborative relationship building process is crucial to expanding effective external referencing programs across the higher education sector in accordance with the requirements of the HESF (Booth, Beckett, and Saunders 2016).

Weaknesses to consider

Although the ERoS process was successful and beneficial to the academics involved, there are potential weaknesses in this approach to consider; especially as the number of institutions involved, and the number of reviews conducted, is scaled up. Swelling numbers could potentially lead to risks associated with equitability, in terms of assessment selection and human capital involved, confidentiality, and other legal/ethical concerns.

A potential weakness of this design, and other external referencing processes, is possible bias of assessment type selected. There is a tendency to use assessment items that are easy to capture and share and not necessarily skills-based or practical items due to the difficulty in recording and sharing of the item. Some of the most effective assessment methods for evaluating students’ outcome attainment may prove difficult to share: e.g. non-paper based samples; practicum, poster presentations, creative arts pieces, hard-copy portfolios and oral assessments. These examples often would be only

partially captured as part of the assessment evaluation process and therefore; the potentially high workload associated with sharing could result in them being ignored.

Difficulty in capturing and sharing supporting assessment documentation was apparent also, which may perpetuate assessment bias. For example, in the focus group discussion a few participants expressed the desire to capture and share the learning management system (i.e. Blackboard), which housed all of the required background information, but this was not logistically feasible. Difficulty in de-identification of student work provided in electronic formats may also complicate the process and make it less efficient.

In addition to potential assessment type bias, the effectiveness of assuring course level achievement standards through the process of reviewing a single assessment item, within one unit, that forms part of one course has not been proven emphatically. Although, those that evaluated more than one item in the EROs process, and in particular capstone units that assure attainment of course level learning outcomes, seem to suggest that this would be the case.

Increasing the number of assessments referenced as part of an individual review may benefit effectiveness, but will compromise efficiency. Regardless of the number of assessment items within a unit selected for referencing, care should be taken to ensure that the narrow scope of this process is not interpreted institutionally as ‘everything is fine’ overall; hence, this process should be considered one element in a holistic process to assure academic achievement standards within an institution.

Issues of equitability also could be apparent with academics themselves. Potential power dynamics may become evident when new and more senior academics are being matched (Bloxham and Boyd 2007). For example, less senior or casual academics may be wary of providing criticisms that could potentially impact future

employment prospects (Bloxham et al. 2015). Some participants also indicated that the process was ‘a bit nerve-racking initially [because] ...I’m going to be evaluated’ which could be a deterrent for some academics. Casual or new academics may also be neglected within the matchmaking process between institutions, or be reluctant to participate. These potential risks signal the importance of having staff professional development and coordination support embedded within the external referencing process such that we engage with the whole community and not just with those that have volunteered or are regular contributors to external referencing.

Some courses currently conducting external referencing may be already well quality assured e.g. through external accreditation or by having leaders that already value the process. However, new HESF requirements dictate that institutions engage more fully with external referencing from 1 January 2017 (HESF 2015). We surveyed 29 Australian higher education institutions to assess ERoS’s impact on the sector: eight indicated that they would use the ERoS process without modification, three will draw on ERoS to develop a new approach, 12 will use it to develop an existing approach, and six selected other. Of those that selected other, most indicated that they would examine the ERoS methodology as part of their decision making process. The four ERoS institutions are generally embedding the process into comprehensive course review.

There may be perceived risks to intellectual property related to external referencing. For example several academics requested permission to use partner’s assessment rubric/ tasks during ERoS; however, academics or an institution may see this as a threat to their competitiveness in recruiting students (though this was not the case in ERoS). We contend that the benefits associated with external referencing outweigh potential issues associated with the management of intellectual property rights. Participants are protected with a confidentiality agreement before the

commencement of the process. Furthermore, academics benefit by gaining a community of practice network and capacity building framework in which to assure and enrich their skills.

The trend to open courseware in the last decade and the availability of information so widely on so many platforms challenges traditional university notions of intellectual 'ownership'. It is important to distinguish between intellectual property relating to courseware, and the certification function universities perform. The verification of academic standards clearly relates to the certification function, that graduates are clearly capable of performing the professional roles for which they have been educated. The EROS aims, which informed the design of the external referencing approach, evolved and were refined over the implementation. Our original aspirational aims were to enable academic standards of student work to be calibrated across institutions to meet higher education standards requirements, while contributing to quality enhancement and quality assurance of student learning. Another goal was to develop a transparent and sustainable process, which supported knowledge sharing and capacity building of the academics involved in a way that was efficient and effective. Operationalising the original aims has led to the articulation of these as five good practice principles for external referencing (Bedford et al 2016, 14-15):

(1) Effective

- Supports course and unit quality enhancement and quality assurance

(2) Efficient

- Efficiently supports external referencing of assessment and grading of students' achievement of learning outcomes across comparable courses of study

(3) Transparent and open

- Facilitates open dialogue between staff teaching analogous courses to support consensus building around standards of students' attainment of learning outcomes

(4) Capability building

- Contributes to staff professional learning and enriches discipline communities of practice

(5) Sustainable

- Provides a complete and sustainable process for external referencing that can be routinely enacted within higher education

Conclusion

The ERoS process has been shown to be effective, efficient, transparent and open, and capability building; thus it has a solid foundation to become a sustained part of institutional quality assurance and enhancement processes. The model is values-based in emphasis rather than strictly compliance-focused and because of this, it has demonstrated effectiveness in motivating and achieving collaboration between discipline communities. Participants found the method to be valuable for facilitating quality assurance and enhancement processes for their courses, and fostering connections that supported capability building through peer learning. The method strikes a balance, being sufficiently robust without being overly time-consuming. The project has led to a number of positive outcomes for both ERoS participants and institutions such that some of the peer relationships established have continued and led to further collaboration and networking.

The methodology provides a sustainable end-to-end process for external referencing that can be successfully used by universities to help meet the HESF requirements for external review and improvement activities (HESF 2015). The results demonstrate findings similar to those found in Krause et al. (2014) in that agreement on students' course learning outcome attainment in analogous units or courses at different universities *is* possible using the ERoS method, in conjunction with free open source technologies for communication. Providing institutions with a low-cost and sustainable option for managing this process, such as that provided here, is important given the current funding climate restricting the sector, and in light of the legislative requirements surrounding this issue.

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