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Please contact Professor John Germov if you would like a copy of the published version of this paper.

Email: john.germov@newcastle.edu.au

Bringing the budget back into Academic Work Allocation Models: A Management Perspective

Michael Robertson^{a*} and John Germov^b

^aMichael Robertson, Associate Director, Faculty Services, Pro Vice-Chancellor Unit, Faculty of Education and Arts; ^bProfessor John Germov, Pro Vice-Chancellor, Faculty of Education and Arts, The University of Newcastle, Australia

Issues surrounding increasingly constrained resources and reducing levels of sector-based funding require consideration of a different Academic Work Allocation Model (AWAM) approach. Evidence from the literature indicates that an effective AWAM is founded on the principles of equity and transparency in the distribution and allocation of academic work across the three key domains of teaching, research, and service-administration. It is recognised that the success of any AWAM approach is positively influenced by a clear methodology that is easily understood and widely accepted by academic staff. This paper presents a case study of the development of a new faculty-level AWAM at one Australian university that incorporates the desired principles, but is linked to the budget and resource planning, allowing it to be agile and responsive in a volatile fiscal environment.

Keywords: academic workload; academic work allocation models (AWAMs); academic performance expectations; performance management

Introduction

While Academic Work Allocation Models (AWAMs) are now commonplace in the Australian university sector, it is fair to say that the management of academic workloads remains a vexed issue. In this paper we review the common AWAM types used in the Australian higher education sector to determine the key issues that underpin an effective approach to the management of academic work allocation. Informed by these insights, we then outline the development of a new faculty-level AWAM at one Australian university, as a case study of how to implement an efficacious AWAM framework that takes account of extant resources.

Despite the widespread existence of AWAMs, a number of studies have found that the models and the metrics used are not well understood by staff (Barrett & Barrett, 2008; Lazarsfeld-Jensen & Morgan, 2009). Many models are administratively burdensome and often so complex as to defy intuitive interpretation or reflect actual work processes, so that they are not meaningful to academic staff. The work allocation process is further obscured, in our view, when AWAMs are not clearly linked to a department's budget – a common occurrence in the sector – that then can become the source of industrial disputation between unions and management. While unions often dispute the appropriateness of budget-based models, we argue it is possible to 'bring the budget back in' to AWAMs, while also addressing the main domains of academic work (teaching, research and service), in order to construct an understandable model with appropriate metrics that can serve as proxies for the work academics undertake.

* Corresponding author: Michael.Robertson@newcastle.edu.au

Numerous university staff surveys indicate that academic staff have high levels of dissatisfaction with their workload and work/life balance (Langford, 2010). In a study of work allocation in ten Australian universities, Lyons and Ingersoll (2010) found that academics spent increasing amounts of *unpaid* time on research and teaching. A constellation of factors have contributed to this situation, including: public funding constraints; increased student participation and diversity; multi-campus delivery; increased casualisation of employment; the devolution of administration; heightened global and national competition based on research performance; and initiatives to address teaching quality and new pedagogies (Barrett & Barrett, 2008; Lazarsfeld-Jensen & Morgan, 2009; Lyons & Ingersoll, 2010; Paewai, Meyer & Houston, 2007). For some commentators, the advent of managerialism coupled with work intensification herald the decline of professional autonomy and collegiality in the academy (Burrows, 2012; Lazarsfeld-Jensen & Morgan, 2009; Lyons & Ingersoll, 2010; Hull, 2006). While for others, notably academic staff unions, the use of AWAMs provides an avenue to address the equitable distribution of academic work (Kenny, Fluck & Jetson, 2012; Barrett & Barrett, 2008, 2009; Vardi 2009).

Despite the noted difficulties in accurately measuring academic performance (Wolf, 2010), the use of AWAMs can be of benefit to individual staff, unions, and management (Barrett & Barrett, 2008). The information gained through the use of an AWAM also has the potential to facilitate individual staff in managing their own work effectively. University management have also supported the use of AWAMs as a transparent way of managing resource allocation, often including work allocation guidelines within their enterprise agreements (that is, the agreements between universities and their staff) (Paewai et al., 2007; Vardi, 2009). Unions have often pressed for highly prescriptive and detailed approaches (Kenny & Fluck, 2014; Kenny et al., 2012), while university management has tended to favour AWAMs with greater flexibility and a lower administrative burden. As our review of existing AWAM types will show, most models either fail to take account of a sufficient range of academic work or fail to seriously address budget considerations, resulting in on-going contestation between staff, unions, and management.

A Typology of AWAMs: Key Features and Limitations

Although a large number of AWAMs with varying degrees of granularity and complexity exist within the higher education sector, it is possible to categorise a set of ‘ideal type’ models that are defined by their base unit of measurement. Drawing on the available literature, in addition to reviewing the workload clauses within university enterprise agreements and any associated information publicly available on university websites, we developed a typology of five AWAM types, noting their key attributes and limitations. Vardi (2009) identifies three models – contact hours, ‘actual’ hours, and points based models – to which we have added models based on percentages (Barrett & Barrett, 2008) and on equivalent full-time student numbers. While in practice, some of the AWAM types may include overlapping attributes, especially as they are refined over time within an institution, it is clear that the five types represent the dominant approaches to academic work allocation management within the Australian university sector.

The first two models involve AWAMs based on hours. The simplest model is based on ‘contact hours’, whereby the unit of allocation is the time spent on teaching delivery. Academic staff are set a minimum (and possibly maximum) number of teaching hours to deliver per week or over the course of a semester. There is usually little or no consideration of the mode of delivery, student numbers, the number of courses taught, or differentiation between types of teaching; these matters tend to be handled informally outside of the model. Variations of the model may include additional weightings for specific teaching-related administration. A contact hours model excludes research and community service, which are dealt with outside of the model, usually through the performance management system of the university. Limitations of the model include inequities that result from staff being responsible for different numbers of students, the marginalisation of research performance, the potential for inefficient teaching delivery, and the lack of a direct link to

the department's extant budget.

The 'actual' hours model attempts to cover the complete range of academic work, by assigning notional hours to various duties including teaching, research, administration, and community service. Such models are often very detailed and complex, and are calibrated by the hours specification of university enterprise agreements, which tend to acknowledge the annual maximum number of paid working hours based on a 37.5- or 38-hour week. While much more comprehensive than the contact hours model, the 'actual' hours model equally suffers from the potential disjuncture between the model and the available budget, where hours are 'filled' before the essential work required is allocated. This model also assumes that the current-state of the way work is performed, particularly teaching delivery, is efficient and may unwittingly support problematic work practices. Other limitations include a significant administrative burden to operate the model, including the use of complex definitions of included and excluded tasks and their respective hour weightings, and regular contention from academic staff about the appropriateness of time allocations for certain tasks, especially for research. As with any detailed model, there is a risk that it instils a culture of 'work by formula' and undermines the collegial ethos of academia.

The points-based model uses notional points, rather than hours, assigned to a wide range of academic tasks, including research, administration, and service, with staff required to meet a maximum points target. The model can be as equally complex as the 'actual' hours model, but the use of points tends to obscure the relative weightings between different academic duties, though its assumptions are equally contested by staff in terms of the amount of points allocated for particular tasks or outputs. The points-based model can account for student numbers, but this does not guarantee that the model is aligned with the extant budget. Such models are often time-consuming to administer and can lead to a culture of 'point-scoring', whereby the collegial ethos is eroded by staff 'chasing points' to inflate their work allocation, or only undertaking tasks when points are attached. Regular lobbying by staff to add further tasks that attract points, or to increase point weightings for certain tasks, further removes the model from the department's budget.

The percentage-based model usually reflects the '40/40/20' guideline, sometimes codified within a University enterprise agreement, whereby academic work is allocated 40 per cent to teaching, 40 per cent to research, and 20 per cent to service. In practice, most percentage-based models use a sliding scale, based on an agreed percentage of time allocation for the three main domains of academic work, which is a negotiated outcome with each individual staff member. The percentage-based model can be time-consuming in terms of requiring individual negotiation with all staff, but overall has a low administrative burden thereafter, and allows for considerable flexibility, such as tailoring work allocation to specific career levels and individual contexts and aspirations. While the model is simple to understand, it is dependent upon a diligent end-of-year performance review to ensure that staff achievements have aligned with the prospective work allocation. Like the other models reviewed thus far, the percentage-based model is not explicitly linked to a department's budget. The model may also be perceived as inequitable as allocations are not standardised and are 'negotiable', particularly if performance expectations are not made explicit.

The final AWAM type is the student-based model. Unlike the other models, this AWAM is explicitly linked to a department's given budget. The model assigns teaching duties to staff within a minimum and maximum range, using equivalent full-time numbers of students as the metric. When describing budgeted student numbers in the context of a department, the total budgeted equivalent full-time student load (EFTSL) is a projection of the expected students to reside within the unit that determines the amount of student income to be allocated to that area. Institutional forecasting and projections of student numbers are commonly prepared and provided to departments after the modelling of enrolment and higher education sector market trends. Given that numbers of students reflect a certain amount of funding (after university running costs are accounted for), it is relatively simple for each department to ascertain the minimum quantum of teaching required of its staff. The

model is equitable and easy to comprehend, explicitly takes account of the number of students, and does not preference the mode of teaching delivery, thus potentially facilitating efficiencies in the use of staff resources. The main limitation of the student-based model is its primary focus on teaching allocation, thereby excluding research performance and community service activities, though some accommodation is usually made for a limited number of governance roles. Furthermore, staff and unions tend to question the budget assumptions underpinning the student-based model.

While all models have their benefits and limitations, it is clear that the utilisation of an AWAM can provide transparency, consistency, and fairness in distributing work among academic staff. Work allocation should be viewed as one dimension in the management of academic staff whose efficacy is enhanced where efforts are made to align AWAMs to performance management systems and strategic goals, including innovation and excellence in teaching and research (Barrett & Barrett, 2009; Vardi, 2009). We caution that AWAMs are not a proxy for the performance management of staff, which should additionally involve explicit performance expectations that take account of academic appointment level, professional development needs, and contextual factors including the individual's career aspirations and the strategic goals of the department and the wider institution.

Developing a new AWAM: A Case Study

The Faculty of Education and Arts at the University of Newcastle has a long-established points-based AWAM that has been a continual source of academic frustration and discontent about how the various aspects of academic work are valued, measured and recorded. Over the years, tinkering with the AWAM has led to a proliferation of additional tasks/roles that receive a points allocation, often as a form of 'reward and recognition' for staff contributing to key governance and administrative roles. One department also developed a variation of the model that equated points to hours, on the premise that this would increase the AWAM's transparency, though this reform did not greatly improve staff support for the model. Moreover, the current model(s) are highly labour intensive to maintain. From a management perspective, the key issues concerning the AWAMs were their misalignment with the budgeted funding base, coupled with their opaqueness, and lack of staff support.

In the current AWAM, academic staff receive their work allocation based on a combination of their individual contributions to both teaching and administration, in addition to the output of their research activity. There is often little scope for individuals to challenge the results of their personal work allocation that are calculated using the governing AWAM metrics. Much of the administrative burden and academic discontent with the existing AWAMs are related to the process for recognition of third stream academic endeavour, namely service-administration. This endeavour has become a popular mechanism through which additional work allocation recognition is often sought and contested (particularly given much of its self-directed nature). In most cases, individual claims for additional work recognition for such activities often amount to a minimal increase to an academic's overall work allocation (points), requiring a disproportionate investment of resources to administer. In a small number of cases, a pattern of opportunistic behaviour may emerge through the habitual claiming of 'superficial' service activities as a means to artificially increase an individual's work allocation.

In response to this context, the 'Faculty AWAM Development Project' was established, which is a work-in-progress. Throughout 2015, the student-based AWAM described herein is being run 'offline' with the full knowledge of academic staff and the National Tertiary Education Union, in parallel to the existing AWAMs currently in use. The parallel modelling is intended to provide an evidence-based dataset that will help to inform 2016 resource planning. It will also provide a valuable insight into the potential benefits and limitations of a student-based AWAM that will form the basis for further discussion and review with Faculty staff.

One of the key issues of contention over AWAMs noted in the literature is how AWAMs address the balancing of teaching delivery and research performance. While teaching is the

primary source of funding for academic work, research performance is often the basis upon which institutional reputation and individual career progression depend, despite moves by some universities to introduce ‘teaching-focussed’ positions and associated promotion criteria (Probert, 2013). Furthermore, it is quite common that early career academics are given heavy teaching responsibilities and are frequently responsible for the recruitment and support of casual staff, which may impact on their ability to establish a research profile (Barrett & Barrett, 2008; Lyons & Ingersoll, 2010; Meyer, 2012; Lazarsfeld-Jensen & Morgan, 2009). A reduction in teaching allocation for early career staff may, however, limit other staff in meeting set research outputs (Barrett & Barrett, 2008). How research is handled by AWAMs remains a contentious issue in the sector and was a ‘front of mind’ matter to address in the formulation of a new Faculty model.

Guiding principles

The core themes of equity (fairness), transparency and simplicity provided the foundations for the AWAM project. A deliberate attempt was made to integrate two of the organisation’s explicit strategic priorities into the new AWAM model. The first requires that all ‘teaching and research’ academic staff are engaged in both teaching *and* research, and the second requires the prospective work allocation to all staff of a minimum of 20 per cent for research activity and 10 per cent for service-related activities, as specified in the University’s enterprise agreement, which was approved in late 2014.

Table 1 provides a summary of the new AWAM’s guiding principles, which aim to address the specific issues and typical challenges of academic work allocation as described throughout this paper and discussed in the literature review.

Table 1: Faculty AWAM Guiding Principles

The new AWAM aims to:

- Be easily understood, equitable, and transparent (with staff work allocations published on a password-protected section of the Faculty website).
 - Enable management of individual and School work to meet the strategic goals of the Faculty and University
 - Be sustainable and aligned to the Faculty budget.
 - Comply with the principles of the current Academic Staff Enterprise Agreement, which include a 20 per cent prospective research allocation for all staff and a 10 per cent allocation for service activities.
 - Establish baseline teaching expectations of all ‘teaching and research’ academic staff (accounting for FTE fraction).
 - Allow staff to prospectively estimate their workload for the forthcoming year.
 - Facilitate responsiveness to changed circumstances and priorities.
 - Support Head of School discretion in the form of additional allocations for strategic projects.
 - Pass the ‘reasonableness’ test, including the right of staff to request a review of their work allocation, and
 - Be subject to an end-of-year review.
-

Design challenge

It is important to acknowledge that as part of any move to a new AWAM, staff may demonstrate attachment to their existing local work allocation model and may exhibit reluctance to change. Barrett and Barrett (2009) advocate that academic staff and unions need to engage fully with the development and implementation of AWAMs in order to facilitate local ownership and acceptance. While close attention should be paid to developing the scope and technical aspects of the model, equal attention needs to be paid to ensuring adequate on-going consultation with academic staff (Barrett & Barrett, 2010). Barrett and Barrett (2009) also comment on the need to retain flexibility within a model to enable continuous improvement and responsiveness to contextual change and organisational strategic direction. In introducing a new AWAM model, it is fundamental that the ‘what’s in it for me’ question is addressed as part of the rationale for change. In addition, it is helpful if staff can view the likely impact of the model on their work allocation in a ‘sand pit’ environment, to encourage active engagement with the consultation process, address

unforeseen issues or anomalies, and overcome the tendency to ‘stick with the devil you know’. The consultation and implementation framework developed for the project is summarised in Table 2.

Table 2: Faculty AWAM Consultation Process

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- Undertake collegial discussions with Faculty Executive and Faculty Board to inform the development of a new model.
 - Hold a Faculty forum open to all staff to canvass staff views and suggestions.
 - Establish an online forum as an additional avenue for staff feedback.
 - Establish AWAM parameters and guidelines, ensuring they conform to the enterprise agreement.
 - Develop a draft model and circulate to all staff for feedback, inclusive of a ‘sand pit’ version whereby staff can view the impact of the proposed model on their work allocation.
 - Host a second Faculty forum to discuss the proposed model.
 - Undertake consultation with the National Tertiary Education Union via the Academic Staff Consultation Committee (ASCC).
 - Take account of feedback and finalise the AWAM.
 - Present the AWAM to staff and the ASCC if subsequent revisions are substantive in nature.
 - Seek senior approval of the new AWAM.
 - Implement the AWAM as a pilot in the first year and undertake an end of year review (making revisions as required).
 - Ensure transparency in the operation of the AWAM by publishing the model and work allocation reports on the Faculty password protected website.
-

Recent studies surrounding the reconceptualisation of the academic workforce (Bexley et al., 2011; Coates & Goedegebuure, 2010) and the work satisfaction of academics (Fredman & Doughney, 2011; Langford, 2010; Houston, Meyer and Paewai, 2006), suggest that it is critical to give particular attention to the sensitivities of academic autonomy in the introduction of a newly developed AWAM if it is to be successful. Bexley et al. (2011) argue that many academics ‘indicate that they are struggling to manage existing workloads. While... the satisfaction academics gain from their scholarly activities to some extent mitigates problems related to working conditions, protecting the future quality of teaching and research will require careful consideration of work design, workloads and working conditions’ (p. xi). There is also further evidence to support the view that academics’ perceptions of their work are strongly influenced by the process of work allocation, and largely dependent on how much discretion or choice individuals have over the work they are engaged with (Fredman & Doughney, 2011).

In an environment of increased accountability, growing legislative compliance requirements and restricted public funding, academic staff have long complained that universities have become dominated by corporate ideologies such as ‘managerialism’ (Cain & Hewitt, 2004; Coady, 2000; Currie, 2004; Marginson & Considine, 2000; Sharrock, 2012). With an enhanced government focus on improving quality, while also increasing research and innovation outcomes, it is often suggested the adoption of such practices may weaken university values of intellectual freedom. Of equal importance however, is the need to address strategic priorities of the institution through an open acknowledgement of the specific contextual realities and issues under which the model is to be adopted. As Houston et al. (2006) state, ‘clearly, managing the workloads of academic staff whilst respecting the academic culture is an exercise in balancing the complex and variable’ (p. 27).

It is acknowledged that any AWAM needs to be context specific and tailored for the local organisational environment. It is also recognised that the introduction of a new or revised AWAM, will have direct fiscal implications for the area and it is therefore essential to link the AWAM to the organisational area’s budget within which it operates. Given the self-directed nature of much academic work, staff have a responsibility to reflect upon the impact of their individual choices about the work they undertake, including consideration of work priorities, the exceeding of

requirements, and their engagement with work allocation consultative processes (Barrett & Barrett, 2008, 2010; Wolf, 2010; Paewai et al., 2007).

Towards a hybrid budget-based AWAM: The relational student-based Model

Upon consideration of the evidence presented in the literature and reflection on the issues related to the existing points-based AWAMs, including feedback from staff consultations, it was decided to develop a hybrid budget-based model, using student numbers as the key metric. During the research process, an existing EFTSL-based AWAM used at another institution informed the development of the new model, because it aligned with our ‘guiding principles’ (Table 1), including the three core ‘best practice’ themes of equity, transparency and simplicity. In addition, the basis of the model is the extant budget, but unlike other student-based AWAMs, this model provided a clear recognition of individual academic research performance. In adapting the model to our local context, and taking account of AWAM prescriptions in our enterprise agreement, we were able to address many of the concerns raised against budget-based models; that is, that they are primarily teaching focussed, ignore research, and do not account for governance and service activities. We have tentatively termed our model, the ‘relational student-based model’, as the allocation of students to staff is related to the amount of research and governance they undertake, within set parameters. The key features of the model are detailed in Table 3.

The relational student-based Model, nominally allocates all staff a base teaching average (expressed in numbers of equivalent full-time students), within a set range (floor and cap), which each can be used as levers to influence work allocation, along with the introduction of strategic loadings to acknowledge a limited number of governance and service roles where required. Teaching allocation can thus be reduced through research and governance performance, within the floor and cap. For example, a certain amount of increased research performance directly relates to a proportional decrease in an individual’s teaching allocation.

The model assumes that service beyond the university in the form of relevant community and professional engagement activity is notionally covered by a 10 per cent service allocation to all staff (with no AWAM administration required in the form of recording service details, which are discussed in performance appraisal meetings with staff and their supervisor). Given the extensive variety of community-based endeavour that academic staff may be engaged with, the development of an exhaustive table of third stream items would add further complexity and diminish the appeal of the model’s simplicity. In addition, allocations for teaching and research assume that related administration is ‘built-in’ to the allocation, thus requiring no need to record specific or itemised administrative details as part of the model. The model also includes loadings for a small number of governance roles, such as program leaders, deputy heads of school, and associate deans.

Table 3: The relational student-based model: Key features

The new AWAM aims to deliver key changes to existing practice that ensure:

- One consistent faculty-wide model.
- Fair and transparent work allocation that is closely aligned to budget.
- Emphasis on teaching and research outcomes rather than activity or hours.
- Teaching is to be undertaken by all ‘teaching and research’ academic staff.
- A base teaching allocation applies to all staff, with research and service performance determining a higher or lower allocation (plus a small number of other ‘loadings’).
- Allocated equivalent full-time students includes all required commitments for teaching delivery (marking, administration, student consultation etc.).
- Teaching ‘buy-out’ is available as a reward for the generation of grant and other external income.

The design simplicity of the relational student-based model makes use of a basic mathematical formula that can be easily understood by staff. This model also allows academic staff to prospectively estimate their work allocation, which is often a requirement stated in

enterprise agreements. The model is also relatively simple to operate and will thus reduce administrative overheads and the provision of on-going AWAM system maintenance. Flexibility of the proposed AWAM is also a defining feature of the model's architecture, which can be easily adjusted to suit the needs of the local organisational area, such as loadings for differential cluster funding and fee rates. Many of the individual elements of the AWAM can be adjusted to address specific resourcing issues or emerging strategic needs.

The proposed new AWAM offers a very different framework to the existing points-based system. It will require significant communication and regular consultation throughout its implementation, to ensure acceptance by academic colleagues. It is envisaged that the introduction of a simple student-based AWAM formula will provide staff with greater clarity and understanding of the work allocation process. The model objectively recognises individual research performance, governance, and service, is founded on the principles of equity and transparency, is aligned to funding and resource constraints, and is easily adaptable to the specific needs of departments.

Benefits and limitations of the model

There are a number of appealing aspects to adopting a hybrid student-based AWAM approach. Critically, the objective, transparent and equitable distribution of an average base teaching load requirement is paramount. This base teaching allocation can then be adjusted depending on an individual's research performance, using a relational approach that benchmarks individual academic researchers to the averaged performance of staff at the same academic level. The enhanced AWAM research calculation also supports any numerical research index system and can therefore be used in wider institutional contexts. In terms of strategic management, the research calculation employed within the AWAM ensures that as overall research results improve, so too does the associated academic research average. This will potentially encourage ever-increasing research performance.

Modelling suggests that the implementation of the proposed AWAM would result in a significant re-distribution of existing work allocations throughout the broader faculty, with a rebalancing of staff time and effort invested between the domains of teaching and research. As such, the ability to align institutional strategic priorities with academic staff work allocation provides a positive stimulus to ensure that all academics are actively engaged with teaching and research.

A key element for the success of a student-based AWAM approach is the effective alignment of academic resources with an organisational unit's extant funding base. Use of the model proposed here aims to assist academic leaders to develop a clear understanding about the impacts of fiscal policy on academic work allocation, and help to reconcile the ambitions of academic scholarship and endeavour for long-term financial sustainability.

Student-based AWAMs have been subject to criticism about the risks associated with a significant change in institutional resourcing or funding levels, which could potentially have consequences for the teaching allocations of individual academic staff. Detailed modelling can help to minimise these risks, and provide useful insights into the costs of delivery and areas of cross-subsidy.

Any student-based AWAM is predicated on the assumption that the supporting budget is both appropriate and accurate. It is timely for academic staff and academic managers to develop an informed understanding of how resource allocation is directly aligned with a department's budget and gain insight into operating effectively within the constraints of their local context. While we are not naïve enough to believe this will resolve all industrial disputation or contestation within a department over whether resourcing is sufficient, an enhanced understanding of budget processes and the linkages between the work academics do and how they are funded, can only be beneficial for both staff and management.

Operating under the proposed relational student-based model, academic staff with lower research productivity will typically be allocated increased teaching responsibilities (up to a set

maximum). As a result, impacted staff may find it difficult to allocate sufficient time during intensive teaching periods to invest in their research efforts. This has the potential to create a continuous cycle of high teaching loads with limited opportunity to embrace and engage with research.

With the development of rapid advances in new information and communication technologies, the impact and demands on academic work through the use of technology-enhanced delivery to support and facilitate learning, has become a critical issue (Tynan, Ryan, Hinton and Mills, 2012). Within the context of the student-based AWAM discussed here, there is currently no formal acknowledgement of academic effort invested toward technology-enhanced learning. The relational student-based AWAM does not privilege the mode of course delivery in the allocation of students to be taught. As requirements for online, blended and 'flipped' modes of teaching delivery become more commonplace, it may be necessary to use strategic loadings to encourage the uptake of these teaching modes among staff, in recognition of the professional development required.

Conclusion

It is recognised that there are a variety of approaches, frameworks and metrics that aim to both allocate and record academic time, effort and scholarship. It is also clear that there is no 'one-size fits all' solution to the on-going debate surrounding the use of AWAMs throughout the Australian higher education sector. The proposed relational student-based AWAM discussed here, addresses many of the limitations of existing models. That said, all academic institutions, and the individual departments that reside within them, will have their own contextual factors and priorities that will determine and influence the development and use of an AWAM. Therefore, when undertaking the development of an AWAM, effort should be made to avoid the 'tendency to make the measurable important rather than the important measurable' (Hornibrook, 2012, p. 35). It is hoped that the resulting model architecture and the discussion of its opportunities may provide another option for academic leaders who may be about to embark on a similar journey.

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