

Roles in support of teaching and learning

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This paper reviews recent literature on the roles of practitioners employed to support teaching and learning within institutions of higher education. These practitioners are expected to support the adoption of Internet technologies and quality teaching and learning outcomes, primarily through instructional design and academic development services. The literature identifies some common approaches as well as some common problems. Some problems emerge because of the uncomfortable nexus between “academic” and “managerial” values and cultures. Future research to understand these problems is suggested.

Keywords: technology integration, academic development, instructional design, project management, learning and teaching support.

Introduction

The concurrence of new technologies, a focus on the quality of teaching and learning, and increasing pressures for fiscal accountability all mean that institutions of higher education, including those in Australia, face many recent and emerging imperatives upon their teaching and learning functions (Davidson-Schivers, 2002; Whitchurch, 2002). Reactions to these environmental forces, at the institutional level, tend to fall into two clear categories. Both categories of strategy assign a number of relevant responsibilities to individuals employed as specialist change agents. This literature is also increasingly interdisciplinary (Huber 2000; Schulman, 2000), in an environment where disciplinary barriers contribute to the complexity of finding solutions to meet institutional imperatives. This paper reviews literature from a range of relevant fields, and suggests opportunities to extend that literature.

Scholarship of teaching and learning

In parallel with the focus on the quality of teaching and learning, considerable support has emerged for a “scholarship of teaching and learning (Hutchings, 2002).” This movement has partly emerged out of criticisms on traditional patterns of expectations and rewards for academic professionals (Boyer, 1990), and is also confronted by complexities of working across disciplines (Huber, 2002; Huber & Moreale, 2002).

Schulman (2002) observed that justification for developing a scholarship of teaching and learning rests upon the reality of “pedagogical content knowledge” (p. vi) now being a legitimated sub-discipline within each discipline

... if different disciplines value particular forms of evidence and argument, narrative and explanation, then their pedagogies should reflect the same forms of representation and exposition. Disciplines have contrasting substance and syntax . . . ways of organising themselves and of defining the rules for making arguments and claims that others will warrant. They have different ways of talking about themselves and about the problems, topics and issues that constitute their subject matters. Since teaching and learning a subject are themselves ways of talking about and “doing” the discipline, those consistencies should follow. More generally, if domain specificity is likely to be the hallmark of inquiry, learning and teaching in a discipline, it also follows that we should expect the discussion and investigation of teaching and learning in that discipline itself to be domain specific. (Schulman, 2002, p. vii)

Does this mean that disciplines must be left on their own in order to define, not only how best to accommodate their disciplinary traditions, but also to create their own models of how to integrate technology and to satisfy stakeholders’ demands for increased efficiency? Is it unlikely that one discipline has little to offer another in sharing approaches to meeting the environmental imperatives? Huber (2002) argued for the “value of conversation and exchange among the disciplines as a way of building and

strengthening the cadre of instructors in and around the academy who are committed to exploring teaching and learning as part of their teaching practice (p.27).”

A scholarship of teaching and learning is fine for academics, and a higher educational world populated mostly by academics. However, in reality, the academic world is increasingly integrating other kinds of professionals into its community (Jamieson, 2004). The importance of support functions is increasingly recognised and reflected in the diversity of roles and models that have been deployed to meet the environmental imperatives upon teaching and learning. Although perhaps more fluid and less acculturated than academics, non-academic individuals introduced into teaching and learning support roles carry their own styles of baggage with them.

Tensions between academic disciplines are minor, when compared with the tensions between support function and academic communities. It is an easy accomplishment to point out waste in almost any system, especially one that has enjoyed the uncommon stability of the academy over the last 100 years, now suddenly surrounded by an upheaved environment. However, that does not mean the academy has nothing to offer to its critics and/or non-academic support colleagues. As Margetson (1997) pointed out to the “technicists” and “managerialists” concerning the ethics required for a successful quest for quality in higher education

Questions of values and ethics are still largely avoided, sometimes on the ground that academic development units have a 'service' function requiring them to avoid becoming involved in such questions and to concentrate on the means of carrying out whatever others decide on these questions.

Denied inanimate physical objects, it substitutes the idea of management, treating it as if it were objective although strictly, on the technicist conception, it is not since it is centrally concerned with persons. A concentration on management is especially convenient for the technicist since it enables the exercise of subjugation that is part of a technicist attitude. Control of management provides the technicist with an opportunity to subjugate whatever, or whoever, falls under the technicist's control. Moreover, by combining a subjectivist view of relations between persons with a management function understood as mastery and dominance (rather than as, say, coordination and cooperation), the technicist feels free to exercise absolute, arbitrary power. Academic development work could, then, reasonably be expected to lead by example in practising such qualities as reflective practice, the search for truth, curiosity, critical appraisal, and the use of sound evidence (Margetson, 1997).

Also, the forces for change, particularly the economic imperatives, are also impacting the purity of academic culture, irrespective of discipline, in the sense that more disciplinary practitioners from outside of academe are taking on academic teaching roles under adjunct terms of engagement (Basset, 1998; Savage, Karp & Logue, 2004). Such people may come into academia expressing more sympathy than Margetson concerning the roles of technology and management in the world.

If disciplines are better off by simultaneously retaining their intracultural integrity while sharing common ground where it exists between disciplines, then it follows also that the same kinds of respect should alleviate tensions which exist between academic, stakeholder and support cohorts in the current campaign for systemic improvement of teaching and learning. Seeking to conciliate, Schulman (2002, p. 96) acknowledged the legitimacy of calls for change, not as technicism or managerialism, but as a form of “academic fidelity.”

To individual practitioners involved in the arena of teaching and learning support, whether they consider themselves academic or nonacademic professionals, understanding the need for appreciating situational differences while still finding common ground is important. Those working in this area are likely to face a diversity of circumstances in terms of roles they are expected to perform and the structural models within which they must work.

Roles and models

The scholarship of teaching and learning presents itself as the study of a key, if undervalued part of the academic profession: the role of the academic as teacher. The way this role is executed can be categorised in any number of ways, for instance in terms of innovation theory (Wilson, 2004; Hansen & Salter, 2002),

in terms of mentoring in a community of practice (Brown & Duguid, 2000; Evans, Tutty, & White 2004), in terms of fulfilling a contractual obligation (Boyer, 1990), or in terms of faithfulness to one's discipline and the academy (Schulman, 2002).

It is also important, in discussing roles, to consider the models currently deployed to meet the environmental imperatives upon teaching and learning quality. These include: (1) the traditional model (identified as inadequate) (Boyer, 1990, Schulman, 2002), (2) the central support model (Davidson-Shivers, 2002), and (3) the faculty embedded support model (Struthers, 2002, p.2).

The latter two more recently innovated models have created a number of new non-academic support roles, involving professionals with expertise in instructional design, project management, technology, and administration who must work effectively in support of academic colleagues. Literature provided by writers who have accepted responsibility for reflexively looking at practice in these conditions can serve all professionals who have accepted responsibilities, under a diversity of conditions, for the improvement of teaching and learning in higher education.

Roles

Introduction to roles

Roles found in the literature concerned with support of teaching and learning quality fall into two broad categories: (1) instructional design, and (2) academic development. Both of these roles encompass the integration of new technologies into teaching and learning. Struthers (2002) noted that "learning technologists" as reported by Beetham & Jones (2001) could be sorted into 11 roles, performing a range of 58 activities. Although parsible into so many functions, the two broad categories are a reasonable summation in terms of issues and environments; encompassing the expectations of the practitioners themselves and of the university communities they serve. These two categories, to some extent, do overlap. However they are discussed separately in order to describe the environment and issues surrounding each. Literature describing practice at many universities offers insights concerning issues and problems surrounding the roles.

Instructional design roles

Instructional design roles are usually occupied by those with experience in a programmed approach of some sort to developing educational programs within higher education. Much of the incumbent practices of those working in this role comes from a longer history (Reiser & Dempsey, 2002) of distance education facilitated through printed materials and correspondence via postal service, some of which are adaptable to online higher education teaching and learning quality, but many of which are not (Smith, 2001). In addition there are some aspects of existing instructional design as practiced in higher education which have been adopted from the more recent practices of the information technology sector, in particular, project management.

Instructional design literature

There is an ongoing discussion amongst those involved in the field traditionally known as "instructional design" concerning its aptness for the work involved (Reiser & Dempsey, 2002). The term "instruction" has its roots in behaviourism that has since made room for more sophisticated theories of learning and behaviour (Winn, 2002). In higher education, there seems to be a preference for "educational design." In any case, whatever their role is called, those working in the field have developed a tenuous sense of community, including the understanding that those outside the community do not understand what they really do and how they deliver value (Pan, 2003; Schwier, Campbell, & Kenny, 2004).

Rasmussen (2002, p.377) described the role of instructional design and technology (IDT) professionals as inclusive of the following: (1) professional foundations (including research and theory), (2) planning and analysis, (3) design, (4) development, (5) utilisation, (6) evaluation, and (7) management. The roles which performed these tasks she described as including: project director, client representative, instructional designer, subject matter expert, instructional developer, quality control expert, teacher or trainer, support staff, and evaluator.

Pan (2003), in a case study where she shadowed a higher education instructional designer noted that

An instructional designer's role is; unique, neither clearly leading nor supporting ...is often leader and subordinate at the same time. (p. 289)

The role of instructional designer...is conceptualised as a teacher, based on the nature of the instructional designer's job - conducting workshops, teaching groups of various purposes and holding customised consultations. (p.290)

The other major condition Pan (2003) reported, which supports the expansive tasks/roles lists provided by Rasmussen (2002), was that her subject was facing an ever increasing workload, such that it would, over time, inhibit his ability to reflect and innovate in his work.

Schwier, Campbell & Kenny's (2004) ethnographic study looked at five practitioners of instructional design from North American higher education. Schwier et. al.'s theoretical position is reflexive, calling on ideas from *community of practice* and *critical theory* literatures. Having a larger sample of cases than Pan (2003) to draw data from, they were able to identify patterns and issues from instructional design in higher education. Key findings are listed in Table 1.

Table 1: Patterns and Issues from Cases of Instructional Design Role (Schwier, Campbell, & Kenny, 2004)

Pattern/Issue
An individual's (designer's) practice, to which self reflection is critical, will reflect his or her values and belief structures, understandings, prior experiences, construction of new knowledge through social interaction, and negotiation within professional communities of practice.
Instructional designers have learned a great deal of craft knowledge that is never shared with the larger ID community because it is so deeply held and dynamic, and because there are few organised channels for sharing this kind of knowledge.
Systems need to promote engagement among participants, and promote the co-construction of knowledge, and this extends well beyond the information management and traditional approaches used in most "quasi" communities. We suggest that it includes promoting the development of social capital in the organisation.
A knowledge management view of instructional design places designers in the role of knowledge managers in higher education. They routinely work with teams made up of clients and a variety of professionals to uncover tacit knowledge and make it explicit for the purpose of training and education.
Instructional designers are actually engaging in a process of professional and personal transformation that has the potential to transform the institution . . .The instructional design process, in which designers and others develop new ideas and understandings through conversation, may be a form of cultural learning or collaborative learning. These collaborations, however formed, may express themselves as communities of practice
Sometimes the moniker "instructional designer" is adopted by an organisation before that identity is defined, as organisations create the positions and anoint employees with the label. We speculated that people create identities from their experience and background, and in professional communities they draw on institutional culture, professional literature, professional organisations and reflection to understand the boundaries of their practice. Instructional designers also recognise that their worth may be misunderstood, and that they will need to be able to respond to challenges from clients about their value.
Reflection informs the professional identities of instructional designers, and consequently their communities of practice. Although nobody mentioned using a formal approach to reflection such as journaling, most suggested that they engaged informally and regularly in professional reflection. There was also mention of group events and professional development opportunities that stimulated reflection...
Another issue for [working with] instructors is to open up the process of design to move instructors into a collaborative approach instead of a craft approach to designing instruction. Educators typically work alone when they design classes, and it can be very challenging to open the process to the ideas and criticisms of a team. At one level, this is a process of persuading individuals to take personal risks; in a larger sense, it is a process of opening the private culture of teaching and learning.

Schwier et. al.'s analysis of instructional design roles raised a key question relevant to the environmental pressures for improving teaching and learning in higher education.

Are instructional designers cogs in the education machine, or are they change agents? Our guess is that instructional designers may be acting as change agents more than they realise; that they are participants in moving educational agendas and sweeping societal change. But instructional designers are not necessarily participating in setting the agendas for change. They see themselves as significant participants rather than as leaders, and they are even

somewhat bewildered about why people come to them only as an afterthought. (Schwier, Campbell & Kenny, 2004)

Hawkes & Coldeway (2002) described conditions, such as a highly technologically literate faculty, under which quality instructional design and integration of technology might take place, without the need for major intervention by or interaction with, a dedicated instructional design role.

Management literature

Given the evidence (Rasmussen, 2002, Schwier, et. al., 2004) that management responsibilities are inherent in instructional design roles, this paper also considers literature from the management domain. In particular project management literature is most prominent. This is a larger reflection of the increased visibility of managers in higher education in general (Whitchurch, 2002). (It is interesting, that even within the academic discipline of management - which sees itself as having a nexus with teaching and learning and management concerns, and as more interdisciplinary in its foundations (Bilimoria & Fukami, 2002) - there has been a schism between academia and industry based professionals concerning what attributes should be gained from higher education in the discipline (Levenberg, 1995)).

Perhaps because they are less steeped in disciplinary or academic culture (Schwier, et. al., 2004), or have (in some cases) moved from industry to academe, instructional design professionals are more willing to adopt responsibilities for management convention, practice, and lexicon.

The term *project management* as traditionally used in higher education carries a more general meaning than the specific associations that have become attached to the same term in other sectors. In higher education, even within work to create innovations in teaching and learning or integration of technology, a project is more likely to proceed along the lines of a "lone ranger" model (Macpherson, 2000) than a cross disciplinary set of principles and procedures for managing a team of diverse professionals to develop a sophisticated end product.

It is likely also, that mandates for integrating technology have brought into academe an appreciation for project management and related practices proven where rapid development of programs and related technological products has been required. In addition, showing many similarities, at least in its earlier stages, to the evolution of the discipline of IDT (Reiser & Dempsey, 2002), project management practitioners have a highly organised community of practice with enumerated procedures and competencies (Project Management Institute, 2004). In fact, having been quite successful at securing recognition of their coda at the personal and community level, they have now embarked on a campaign to introduce certification globally at the organisational level (Project Management Institute, 2004).

To instructional design and technology professionals the value of project management has been apparent, as has the cultural problem of explicitly introducing technicist managerialist (Margetson, 1997) language and practice into the academic environment. The higher education literature includes many examples of explicit introduction of project management practices, without acknowledgement of extending a well established and proven discipline from industry into academia (Edwards, Webb and Murphy, 2002; Luck, 2001; Pan, 2003; Struthers, 2002). Some have indeed been more explicit about the benefits and sources, of such new practices (Macpherson, 2000; Kenny, 2002; Whitchurch; 2002; Chapman & Nicolet, 2003).

Academic development

Academic development literature

As mentioned, and as shown in the discussion of literature concerning the instructional design role, that literature indicates some overlap with the staff (academic) development role. The politics of academic development between academic and non-academic development have already been alluded to (Margetson, 1997). Political dynamics have led to various innovations.

One strategy has been to introduce academics into positions to support quality teaching and learning and integration of technology. Edwards, Webb & Murphy (2000) reported how "modelling" was used as an explicit strategy in the course of building organisational capital (an accredited teaching and learning certificate program) to further support teaching and learning while at the same time "embedding" a model of practice within the institution. Their description of practice desirable of modelling included a team

approach, outsourcing technical development tasks, and fiscal discipline, evaluation, and political sensitivity.

Evans, Tutty & White (2004) reported on a holistic approach to developing a community of practice based on program imperatives. Here, common concerns, about falling enrolments being answered by online programs, provided the point of coalescence for the community to form. However, formal institutional support was acknowledged as critical to engagement between faculty members and academic development staff.

Formal strategies, such as required training and faculty release from other duties to undertake training and work on development teams are seemingly sound strategies. In the case of training, or even mandating academic staff work toward a recognised teaching qualification, there are some problems. Shannon & Doube's (2004) study of academic staff participations toward integrating technology and undertaking supporting development for this, indicates that academics in general, are feeling the pressures of the same kind of escalating workloads reported by Pan's (2003) instructional designer

The individual concern most frequently mentioned was time and workload although this was more common in relation to the uptake of web teaching tools than in relation to the use of MyUni. Respondents mentioned both lack of time due to other responsibilities, and the perceived extra time needed to learn about and develop web supported teaching (Shannon & Doube, 2004).

Shannon & Doube also noted that balancing content between technology and pedagogy in established training programs could be problematic. However, looking at trends outside of education, it is clear that work pressures on academic staff mean that content *and* timing must be appropriate. A paradigm change, partly supported by new technological capabilities, is the move from development based wholly on training, to embedding the required learning in performance, making support and instruction available embedded within workflows (Wager, 2002). These problems are acknowledged in higher education, and such a *just in time* approach an online support framework including both pedagogical and technical solutions, was described by Collom, Dallas, Jong, & Obexer (2002).

Macpherson (2000) argued the importance that academic development must include specific outcomes of increased project management *and* pedagogical competencies for academic staff.

The academic culture in some parts of the University is hostile to the language of project management and pedagogical research. Some colleagues appear to be unaware of the advantages and limitations of project management in universities . . . or the extent to which it is already being used in current and effective team leadership practices, particularly in team research management. It is notable that pedagogical concepts have become more evident in academic discourse since the University gave parity of esteem to teaching and research in its HR policies.

The techniques of project management suitable for an academic culture should be institutionalised to support team research and scholarship related to TBDL.

It must be stressed that such policies and criteria should not be used to create or strengthen current bureaucratic structures, but be used to develop congenial and planned processes in temporary matrix organisation intended to increase the probability of projects being completed successfully. (Macpherson, 2000).

Summary of literature concerned with support roles

The nature of concerns about teaching and learning quality and technology integration, demand that all kinds of practitioners involved in this problem space need to be able to work across their natural boundaries. The model (central or faculty embedded), within which support roles are provided, may be determined by a diversity of factors, including institutional size, histories of organisational structure, and so forth. However, the ultimate aim of organisational interventions such as the establishment of support roles and/or units is to embed the innovation and required competencies into the essential operations of the organisation. As an extension of instructional design and management, project management has much

to offer, including a formalised way, introducible at the level of practice, to create and document developing communities of practice.

Continuing the research and documentation of teaching and learning support roles

The literature points out a number of larger and smaller issues, questions and problems, which deserve to be further explored and could be potentially better understood by further research. From the academic perspective, a larger issue identified in Margetson's (1997) chastisement of academic development practice for not "leading by example" is telling. Academic fidelity (Schulman, 2000) pertains to academic development activity as much as to other academic task domains. It is also arguable that, from the managerial/technicist perspective, more fidelity is also required. Both instructional design (Reiser & Dempsey, 2002, Rasmussen, 2002) and project management (Project Management Institute, 2004) disciplines espouse including evaluation in the kit bags of their practitioners. However, it may be that evaluation needs more emphasis and more examination in future efforts by those writing about the support of teaching and learning in higher education. Potential partnerships across the diversity of academic and other professional roles involved need to be explored and reported upon. In the same way that academics are being called to account by their fiscal masters, those holding managerial responsibilities should collaborate with academic colleagues to ensure that their measures of value are valid and reliable.

Although management at many institutions has espoused and adopted managerial structures for instructional design and academic development, there is a need to understand how this is impacting academic culture and performance in delivery of teaching and learning. For example, the divergence of approaches concerning the explicitness of introduced management practice and lexicon raises an interesting research question: Should IDT professionals in higher education be explicit or implicit in pursuing the management responsibilities of their role?

Evaluation as a discipline is similar to the scholarship of teaching and learning, in that it can respect disciplinary integrity, while at the same time, makes the most of available common ground. Evaluation emerged as initially positivistic (Shadish, 1998, Albaek, 1998, & Demarteau, 2002), but over time has taken in the whole diversity of "knowledge interests" (Albaek, 1998) represented across the broader community. Macpherson's (2000) call for expanding competencies should also apply to non-academic staff that would benefit by acquiring broader analytical competencies for making and reporting judgments about progress and development.

In the context of institutional reactions documented in the literature, reflexive science (Margetson, 1997; Burawoy, 1998) offers academics and other professionals practising in support of institutional teaching and learning strategies the opportunity to contribute to a literature concerned with evaluation (Hamersley, 2000) of institutional and individual responses in this domain.

Traditionally, research has been considered either "pure" or "applied" and disciplinary preferences also apply to such a classification. However, searching for valuable insights and useful knowledge amidst contentious interdisciplinary and academic/non-academic aspects of the teaching and learning support environment is a clear opportunity to utilise an updated taxonomy. (Hamersley, 2000) classifies such work as "practical research" that "is geared directly to providing some information that deals with some practical problem, so that the immediate audience for research reports is people with a practical interest in the issue, notably, but not exclusively, policymakers and occupational practitioners of the relevant kinds (p. 224)." Such a definition of inquiry seems to be an adequate compromise on common ground for all the players in the arena of concern for this paper. It is faithful to disciplinary concerns (Schulman, 2002), it meets Margetson's (1997) call for reflexivity; and, as the trend, and literature documenting the trend, for teaching and learning concerns continues, such work will become increasingly "substantive (Hamersley, 2000)."

Burawoy (1998) argued the value and validity of creating theory reflexively, and that reflexive science and positive science can coexist. The value of reflexive science is that it enables "the exploration of broad historical patterns and macrostructures (p. 6)."

The extended case method applies reflexive science... in order to extract the general from the unique, to move from the “micro” to the “macro,” and to connect the present to the past in anticipation of the future, all by building on pre-existing theory. (p.5)

Where positive science proposes to insulate subject from object, reflexive science elevates *dialogue* as its defining principle and *intersubjectivity* between participant and observer as its premise. It enjoins what positive science separates: participant and observer, knowledge and social situation, situation and its field or location, folk theory and academic theory. The principles of this reflexive science can be derived from the context effects that pose as impediments to positive science. (Burawoy, 1998, p.14)

Manifesting such reflexive science, the extended case study (1) extends the observer to the participant, (2) extends observation over place and time, (3) extends process to force, and finally, (4) extends theory.

The relevance of extended case study methodology to understanding teaching and learning support is that it suits the rapidly changing social environmental context more effectively than traditional case methods, which look for commonalities in a diversity of sampled cases. Rather than look at commonalities, Burawoy maintained there was methodological leverage in “tracing the source of small differences to external forces.” The extended case method has proved especially valuable for practical workplace contexts. The academic institutional context may be viewed as a workplace (Jamieson, 2004) that accommodates such methodology. Further relevance of extended case study to the arena of teaching and learning quality support is claimable for its usefulness to bring out “discrepancies between normative prescriptions and everyday practices (p. 5).”

Future “practical” (Hammersley, 2000) research into the roles supporting teaching and learning in higher education should emphasise the many available modes of evaluation. In particular, the extended case method may be appropriate and accessible to development of a scholarship of practice in support of teaching and learning development.

Conclusion

It is clear that the environmental imperatives for improving teaching and learning in higher education, with the accompanying integration of new technologies, are also an imperative for the various professionals involved to find common ground upon which to move forward in new ways along new paths. In this respect, reflexive thinking is important for all concerned. It is necessary for all concerned to consider moving out of past comfort zones, in order that a larger, more effective space may be shared by all.

It is important that all professionals be engaged and involved reflexively concerning their practice. A key driver of the scholarship of teaching and learning is that it provides opportunities to create a synergistic nexus to meet the research *and* teaching requirements of academic career advancement. This incentive may not necessarily engage non-academic professionals with the same effect. However, academics can engage, introduce, and support non-academic colleagues by being more receptive to approaches coming from non-academic sectors, from which they might otherwise instinctively resile. All parties should continue the conversation, in their own ways, and collaboratively, between the growing body of literature and their own practice.

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