Identification and implementation of indicators and measures of effectiveness of teaching preparation programs for academics in higher education

Final Report 2012

Appendices

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Identification and implementation of measures of effectiveness of academic teaching preparation programs in higher education


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LITERATURE REVIEW

Introduction

Professional development programs and activities to enhance teaching and learning have been a feature of the academic culture of many higher education institutions throughout the world for more than 50 years. During this time there have been significant changes in the teaching environment in universities. Pedagogical understandings have developed leading to more varied teaching methods, technology has provided unprecedented opportunities of access and enrichment, academic staff have engaged in dialogue and reflections on their teaching, and ethnic and cultural diversity has demanded new understandings and skills of academic staff. More recently, a growing awareness that university students of the 21st century expect educational experiences which cannot be met by the teaching methods of the past has motivated higher education institutions to take action to raise the quality of teaching and enhance the student learning experience (Knapper, 2003; Hanbury, Prosser & Rickinson, 2008). Countries such as Norway, UK and Sri Lanka, have even gone as far as making pedagogical training of university teachers compulsory as one step towards quality assurance (Gibbs & Coffey, 2004).

These developments have thrown the spotlight on academic development in higher education which faces the challenge of raising the quality and status of teaching despite pockets of resistance to change and some lingering scepticism towards professional development programs (Lipsett, 2005). Although many academic staff now recognise the importance of staying abreast of new teaching ideas and responding to new educational challenges, others prefer to immerse themselves in the ‘academic respectability’ of their discipline. Knapper refers to this as the tyranny of the academic disciplines which inhibits the application of knowledge and insights from other fields, including Education (p. 6). Brew (1995) suggests that what underpins such attitudes is a limited conception of teaching and the perception that professional development programs lack a substantial discipline base and are therefore ‘service’ activities rather than scholarly pursuits. This view is now being challenged with accreditation for academic professional development programs, the tentative step by a number of institutions towards making teacher preparation compulsory for new staff, the recognition of excellence in teaching by institutions, and a growing interest in research into teaching and learning in higher education. This emerging body of research includes a significant number of studies related to academic development.

Several scoping studies contribute to an international perspective of academic development programs. Gosling’s report (2008) is a substantial account of the purpose, strategic importance, structure and status of academic development units (ADUs) in the UK, identifying the growth and breadth of their work, but also highlighting the sense of marginalisation and demoralisation felt by many staff in these units. Gosling’s report concludes by identifying ten principles for maximising the operation and influence of ADUs and making their work more visible. Similarly the Taking Stock Report (2010), published by Ako Aotearoa, The National Centre for Tertiary Teaching Excellence in New Zealand, acknowledges that the key to high quality tertiary education is the capability of the staff in the sector and the way in which they are supported to develop their practice (p. 3). Not surprisingly the Report reveals that the majority of tertiary teachers in New Zealand are appointed on the basis of their credentials in their discipline and have no formal preparation for teaching. Nevertheless, the comprehensive provision of academic development programs nationwide is evidence of the opportunities available to staff to up-skill, and participation rates suggest that many are willing to do so (p. 7). While provision is extensive, the report
notes considerable variation in structural and management arrangements, in intended outcomes, and in the nature, type and availability of programs. The situation regarding academic development in the USA also has been increasingly documented (Donald, 1977; Sullivan, 1983; Diamond, 1988; Gaff & Simpson, 1994; Crawley, 1995; Lewis, 1996) providing an overview of progress especially since the 1960s and 1970s when student protests about uninspired teaching put academic development under pressure (Gaff & Simpson, p. 168). With calls for accountability from parents and governing bodies in the 1990s, the quality of university teaching attracted further attention, resulting in significant growth in the number of ADUs across the USA. Subsequent research into teaching in higher education led to tentative claims of improved teaching as a result of this increased professional development activity.

In Australia the Development of Academics and Higher Education Futures Report (Ling, 2009) was the result of a scoping project documenting current academic development activities in Australian universities. The Report reveals consistency in that nearly all Australian universities have a central academic development unit, but a significantly varied landscape of mission statements, organisational structure, provision, intended audience, institutional support, and resourcing. It identifies a number of key issues and makes recommendations for the sector, institutions and academic development units within institutions. With respect to these it calls for continued financial support at the Federal Government level, institution-wide policies, structure and strategies to consistently encourage, support and recognise quality teaching, and the development of continuing career-related professional development opportunities. It also emphasises the need for programs to be underpinned by research, scholarship and evidence-based practice, and for academic developers to engage in forms of evaluation which will indicate the impact of their activities in the long term (p. 62).

This is a timely challenge given the increasing attention directed to academic development programs in higher education over recent years. Indeed throughout the last two decades a government education agenda of quality, value for money and enhanced participation has resulted in persistent attention to the quality of higher education in Australia leading to a number of inquiries with subsequent reports and recommendations (Ramsden, 2003, p. 233; Bradley, Noonan, Nugent & Scales, 2008; Coates, 2008). This attention has not only focused on policy and practice at the institutional level, but also on teaching practices, the gulf between research and teaching quality in universities and the expectations of students who are now seen as fee paying consumers (Clark, Blumhof, Gravestock, Healey, Jenkins & Honeybone, 2002, p. 129). In response to this a number of Australian universities now require academic staff new to teaching to undertake an initial teaching preparation program in the first years of their appointment, while others encourage their staff to participate in professional development related to teaching through an extensive range of program offerings. With greater attention being paid to the quality of teaching in universities more broadly, and in individual performance reviews and promotion more specially, there are clear expectations that teaching staff will provide evidence of the quality of their teaching and of ongoing participation in teacher development programs. This in turn, leads to questions of accountability and calls for academic developers to demonstrate that their actions are not just in line with institutional strategic initiatives, but have improved student learning experiences and outcomes (Brew, 2007). In order to respond to this there is an expectation that academic developers engage in systematic evaluation of their programs and their impact.

Types and purpose of teaching preparation program for academics (TPPs)

Hicks (1999) defined academic development as the provision of pedagogically sound and discipline relevant development for academic staff across the broad spectrum of disciplines.
present within a university so as to impact effectively on student learning (p. 44). While Hicks’ definition is not universally agreed, it nevertheless suggests that academic development involves a wide range of activities which includes TPPs. This is supported by a number of scoping studies which have documented the range and intended outcomes of various types of TPPs both in Australia and overseas, (Stefani, 2011; Ako Aotearoa, 2010; Hicks, Smigiel, Wilson & Luzeckyj, 2010; Holt, 2010; Ling, 2009; Viskovic, 2009; Dearn, Fraser & Ryan, 2002; Gibbs, Habeshaw & Yorke, 2000; Hilton, n.d).

In general what we do know is that teaching preparation activities for academics vary in scope, content, delivery mode, intended outcomes and audience. They can be formal or informal, short or extended, planned or ad hoc, face-to-face or on-line. Furthermore they may be centrally designed and delivered, be more decentralised including faculty/school or discipline activities, be offered through professional associations or occur through collaborative, peer, mentoring or partnership arrangements.

Prebble, Margraves, Leach, Naidoo, Suddaby and Zepke (2004), in their synthesis of the research on the impact of academic development programs group TPPs into five distinct categories: short training courses; in-situ training; consulting, peer assessment and mentoring; student assessment of teaching; and intensive staff development. Kreber and Brook (2001) developed a similar categorisation of TPPs but excluded student assessment of teaching as a distinct category. Their four categories are: a centralised course on learning to teach in higher education; individual consultations with teaching staff, seminars/workshops; collaborative action research studies on teaching; and peer consultation programs (Kreber & Brook, 2001, p. 101). In reviewing the literature on the impact of academic development programs, Southwell and Morgan (2010) grouped TPPs into two broader categories: Group-based staff development programs (which included short training, intensive staff development and in-situ/collegial communities), and individual-based academic staff development programs (which included mentoring and peer review) (p.47).

Effectiveness of various types of TPPs

It could be argued that all of these programs or strategies have the underlying, if not explicitly stated, goal of improving student learning. However, a scan of the literature reveals that there is little research to suggest which, if any, of these types of programs is effective in achieving this implicit goal, or indeed, if any of the intended outcomes explicitly stated in TPP documents are achieved. According to Devlin (2008) the questions of whether or not various teacher development interventions actually work and, if so, in what ways such interventions influence skills, practices, and foci, and/or ultimately lead to improved learning, remain largely unanswered in higher education (p. 15). This is a problem for academic developers who would benefit from evidence of what works, not only in terms of understanding what would make professors eager to take advantage of these programs (Lewis, cited in Lycke, 1999, p.131), but also so that the limited resources available can be directed to the most appropriate TPPs for each particular context (Postareff, Lindblom-Ylanne & Nevgi, 2007).

Two scoping studies reveal some tentative conclusions relating to the effectiveness of particular types of TPPs (Prebble et al., 2004; Southwell & Morgan, 2010). Together their findings suggest that short training courses which present discrete, skills-based topics have little impact on teaching and learning as there is limited opportunity to change teachers’ conceptions of teaching and no opportunity for teachers to apply the new techniques within

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1 TPP is used throughout this paper to represent teaching preparation programs for academics in higher education institutions as distinct from courses which prepare teachers for the school sector.
the discipline specific context. On the other hand intensive, more comprehensive programs can influence teacher beliefs and behaviour and may lead to a more student-focused approach in teaching.

There is also general agreement that discipline based programs or ‘in-situ’ training is a more effective setting for TPPs especially when they involve participation in communities of practice, mentoring, reflective practice, and action learning (Warhurst, 2006; Rindermann, Kohler & Meisenberg, 2007; Spronken-Smith & Harland, 2009; Ortlieb, Biddix & Doepker, 2010). This type of academic development which is collaborative, authentic and presented within communities of practice also has been shown to be valued by staff (Ferman, 2002; Reid, 2002; Peseta & Manathunga, 2007). Wahr (2010) emphasises the importance of context, demonstrating that professional development designed specifically to meet the needs of staff within their discipline mitigates barriers to learning, a view generally supported in the literature (Trowler & Knight, 2000; Healey & Jenkins, 2003; Taylor, 2006).

Within the last decade an increasing number of studies have focused on the effectiveness of peer review or observation as a strategy for professional development (Hammersley-Fletcher & Orsmond, 2005; Gosling & O’Connor, 2006; McMahon, Barrett & O’Neill, 2007; Bennet & Barp, 2008; Toth & McKey, 2010). Byrne, Brown and Challen, (2010) suggest that peer observation is often dealt with quite unimaginatively with the traditional and somewhat superficial observation of a one-off teaching session dominating the process (p. 216). Given the diversity in teaching settings today, including on-line learning, they call for more varied and in-depth approaches and for more engagement with pedagogical theory, critical reflection and collaboration as a foundation for improvement in teaching from the peer review process. Their study, motivated by discontent with an existing compulsory peer review program, was based on the belief that the peer development process is the opportunity to develop one’s own practice in a meaningful way by engaging in dialogue with others about pedagogy (p. 218). Participants developed a year long plan for peer development with colleagues with mutual interests, engaging in dialogue and scholarship to clarify their understandings of teaching and learning issues. At the conclusion of the study they reported genuine professional development, increased collegiality and autonomy, and that the process of peer development was more effective than observation or review (p. 221). It appears that the success of peer development in this case was largely due to the ownership of the process by the academics involved. In the absence of such ownership what remains is a ‘top down’ approach, which Byrne et al. warn may encourage compliance with policy or procedures rather than engagement with practice, thereby perpetuating the audit culture in higher education rather than developing a teaching and learning culture.

There is a great deal of support in the literature for peer learning within faculty learning communities as a basis to developing a teaching and learning culture (Shulman, 1993; Senge, 2000; Cranton & Carusetta, 2002; Cox, 2004; Boreham, 2004; Feger & Arruda, 2008; McCluskey de Swart, 2009). Such learning communities may be cohort based (where the participants have similar needs and concerns) or topic based (where the focus is on a particular teaching and learning need) (Cox, 2004, p.8). Their structure may be formal with group members selected by senior staff, a specific purpose identified and financial support provided, or informal with voluntary participation in less structured situations. Regardless of the structure, a number of benefits of this process are reported. These include powerful learning from informal interactions in a stress free environment, improved collegiality, the emergence of a sense of citizenship within the institution which leads to improved outcomes for students and a ‘ripple effect’ to other staff (Cox, 2004). Cox also reported that participation in a community of learning motivated staff not only to try new approaches to teaching, but also to analyse the impact of these new approaches which included increased
engagement of students in class, increased student interest, a more positive classroom environment and improved student evaluations. Perhaps more significant, however, were the reports of an increase in students’ abilities to apply principles and concepts to new problems, to ask good questions, to work productively with others, to think independently and to synthesise and integrate information (p.12). Much of the reported improvement in student performance was attributed to the use of a more student focused approach which included collaborative learning, active learning, discussion and the use of technology to engage students. The evidence supporting these claims was in the form of surveys, teaching project reports and teaching portfolios which incorporated exemplars of student work.

Several studies have reported the impact of peer learning and learning communities on mid-career academics, suggesting that it is not only new academics who benefit from peer interaction and communities of practice (Blaisdell, Muriel & Cox, 2004; McMahan & Plank, 2003; Smith & Smith, 1993). McMahan and Plank (2003) describe peer support between experienced academics as ‘old dogs teaching each other new tricks’. They report that mid-career academics, having developed confidence in their discipline, teaching techniques and assessment, often shift their focus to student learning and are keen to try new approaches to teaching related problems. One method of supporting the learning of mid-career academics, reported by Smith and Smith (1993), is through establishing ‘partners in learning’ and encouraging engagement with the scholarship of teaching and learning.

In a multi-layered study Allern (2010) examined the intersection of peer review, the scholarship of teaching and teaching portfolios, as a means of academic development. Based on the notion that peer review of research is an accepted practice, participants’ teaching portfolios were reviewed by peers, challenging academic staff to go beyond recording and providing evidence of their practice to interrogating their teaching beliefs and practices based on the pedagogical frameworks explored during TPPs. The study found that by using their theoretical understandings to review their portfolios and those of their peers, participants moved beyond an interest in teaching ‘tricks’ to deeper analysis of teaching, eventually leading to improved practices.

While these findings suggest strong support for peer learning and learning communities as a form of academic development there are also limitations reported in the literature (Piccinin, Cristi & McCoy, 1999; Piccinin & Moore, 2002; Hollins, McIntyre, DeBose, Hollins & Towner, 2004; Stoll, Bolam, McMahon, Wallace & Thomas, 2006; Vescio, Ross & Adams, 2008). The most common issues include time constraints due to competing demands, size of staff (both too small and too large), lack of institutional support, uncertainty about effectiveness, divergent views on teaching, the quality of leadership and flawed program design and facilitation, all of which can limit the impact and sustainability of learning communities. A study reported by Clegg, McManus, Smith and Todd (2006) attempted to mitigate the problem of time constraints by using email communication as a basis for collegial support during the implementation of a teaching innovation. Analysis of email transcripts and interviews at various stages of the innovation indicated that peer support and learning through email interactions had been an effective form of academic development (p. 98).

A number of the more recent studies of the impact of various types of TPPs report the evaluation of a particular strategy with a focus on a single outcome. Many of these focus on formal extended strategies for groups of participants such as Foundations type programs although there have been a number of studies that have addressed individualised activities such as the use of 'consultations' as a development strategy. (See Table 1 for a summary of these.)
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These studies are often localised and context-bound case studies and therefore not generalisable across TPps more broadly.

Measuring effectiveness

While evaluating the impact of TPps might seem a relatively straightforward matter on the surface, there is in fact, considerable debate about how to determine the impact of academic development programs, what aspects to measure, how to measure them and how conclusive attempts to assess impact can be. Furthermore, any consideration of the impact of academic development programs can only be meaningful when contextualised against the size and type of institution, the resources available and the intended outcomes, adding to the complexity of the task. This however, is not a new problem.

In 1975 Gerry Gaff lamented the lack of impact evaluation of academic development programs, suggesting that unless we evaluate our programs and demonstrate that they produce results in terms of better courses or better educated students, more knowledgeable, sensitive, effective, or satisfied faculty members, or more effectively managed organizations, we will all be out of business (p. 4). Decades later Kreber and Brook (2001) continued to argue that serious evaluation was long overdue and pointed to the difficulty of developing a framework when most academic development outcomes rather than being end points in themselves, were part of the process of becoming (p. 54). Similarly Sword (2011) more recently maintained that changes which might occur as a result of participation in TPps are designed to unfold slowly over time rather than be observable at a point in time. Indeed the very fact that academic teaching development deals with human responses suggests that attempts to measure outputs or outcomes will be challenging. The complexity of the task of evaluation is further complicated by the increasing attention directed to the culture of the institution and the extent to which teaching and learning quality is supported and rewarded (Chalmers, 2011).

These challenges appear to have inhibited evaluation initiatives with few studies addressing the long-term impact of TPps (Gibbs & Coffey, 2004; Prebble, et. al., 2004; Trowler & Bamber, 2005). In his report on educational development in the United Kingdom, Gosling (2008,) noted that academic development strategies are monitored, but there appears to be little systematic investigation of the impact of strategies (p. 38). Although this appears to be a universal issue according to reports and studies emanating from North America, the United Kingdom, Europe, Scandinavia, Africa and Australasia it should not diminish the urgency of determining how to evidence impact beyond participant satisfaction as a basis to making the most effective use of limited resources (Postareff et al., 2007).

A number of studies have attempted to address the question of how to measure effectiveness and impact of teaching preparation activities (Bowie, Chappell, Cottman, Hinton & Partridge, 2009; Hanbury et al., 2008; Devlin, 2008; Postareff et al., 2007; Vanhoff & Petegem, 2007; Gibbs & Coffey, 2004; Thew & Clayton, 2004). Rust (1998), in a UK based study, reported that although the academic development workshops were highly rated and the feedback positive, it could be
seen as mainly a measure of participant's satisfaction, providing no evidence that the workshops achieve any changes in participants' practice (p. 72). While there has been some research in the intervening years into the effectiveness of TPPs, the ‘happy sheet’ that reports participant satisfaction at the end of the TPP arguably remains the dominant form of evaluation of the majority of TPPs. A review of tertiary practitioner education training and support in New Zealand commissioned by Ako Aotearoa (2010), confirmed that participant feedback on the program was the predominant formal mechanism used for evaluation and that academic developers relied on participant anecdotal evidence of their changes in teaching practice. In highlighting the inherent difficulty of identifying the impact of academic development activities on the quality of teaching and learning the report alludes to the challenge not only of determining how to evaluate, but also of isolating what can be evaluated.

In general, the literature relating to the evaluation of academic development uses the terms ‘effectiveness’, ‘impact’, ‘influence’ and ‘strengths’ interchangeably without attempting to define them, thereby lacking clarity of purpose. The American Evaluation Association (2011) defines evaluation as assessing the strengths and weaknesses of programs, policies, personnel, products, and organisations to improve their effectiveness. Moon (2004) asserts that an effective intervention, such as TPPs for academics, will result in changes in knowledge and practice appropriate to the teaching-learning context. This suggests that an evaluation of the effectiveness of TPPs for academics must direct attention not only to the effectiveness of the practices and processes as reported in participant satisfaction surveys, but also to the changes which occur as a result of these practices and processes. A number of studies have investigated the changes which occur as result of participation in TPPs.

Conceptions of teaching

While in general there would be no argument with the premise that improving the performance of teachers will lead to better student outcomes, generating data to support this is more difficult. Recognising this as problematic a number of studies have instead focused on the impact of TPPs on teachers’ conceptions of teaching, reasoning that in the longer term these changes would have some impact on student learning (Marton & Booth, 1997; Van Rossum & Schenk, 1984; Marton & Saljo, 1997). Research has shown that all teachers hold personal conceptions of teaching which are the result of their own experiences, both as students and teachers (Dall’Alba, 1991; Martin & Balla, 1991; Pratt 1998; Prosser, Trigwell & Taylor 1994; Ramsden, 1992; Samuelowicz & Bain, 1992). Such conceptions usually range from those who hold fast to the teacher-focused and content-oriented transmission model of teaching (Entwistle &Walker, 2000), to those who place the student at the centre of decisions related to teaching and learning and see teaching as synonymous with the facilitation of student learning and conceptual understanding (Kember, 1997; Prosser et al., 1994). Samuelowicz and Bain (1992) suggest that in reality this is a more complex position with teachers having ‘ideal’ conceptions of teaching and ‘working’ conceptions of teaching so that even if they believe that student centred approaches are best, they may not act on this belief (p. 110).

A number of studies support the position that in order to effect change in teaching, higher education teachers must begin to think about teaching and learning differently (Bowden, 1989; Gibbs, 1995; Gow & Kember, 1993; Ramsden, 1992; Trigwell, 1995). This is somewhat of a challenge given the literature which acknowledges the difficulties in changing conceptions of teaching, (Holt-Reynolds 1991; Kennedy 1991; Simon & Schifter, 1991; Taylor, 1990). Despite the difficulties reported there have been attempts to change participants’ conceptions of teaching by increasing their awareness of other conceptions which are more conducive to student learning (Martin & Ramsden, 1992; Ramsden, 1992;
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Trigwell, 1995) and through action research (Gibbs, 1995; Kember, 1997). The use of action research is in line with Ramsden’s (2003) position that teachers in higher education need to think about teaching in a scholarly way in order to challenge their long held conceptions.

Ho, Watkins and Kelly (2001) implemented a program intended to challenge and change conceptions of university teachers based on a model of change developed from the work of several theorists (Argyris & Schöon, 1974; Posner, Strike & Hewson, 1982; Lewin, 1947). Participants were engaged in a four-stage process of self-awareness, confrontation, exposure to alternative conceptions and finally, commitment (p. 147). The impact of the program was assessed through a comparison of conceptions of teaching using recorded interviews at the Pre, Immediate Post (at the end of the program) and Delayed Post (one year later) stages. Data on student perceptions of participants’ teaching through CEQ scores and students’ approaches to studying, both before and after the program, was also analysed. Of the participants, approximately 25 per cent demonstrated significant changes in conceptions of teaching which had a positive effect on their teaching practices and student learning approaches. A further 50 per cent of the participants demonstrated changes to a lesser extent and approximately 25 per cent exhibited minor or no change in conceptions of teaching. While the conclusions were drawn with caution due to the small number of participants, the results suggest that professional development programs can lead to changed conceptions of teaching with consequential changes in teaching practice and student approaches to learning, and that these changes occur over time (Ho et al., p. 163).

Giertz (1996), in her study of the long term effects of an intensive three week training program for academic staff, focused on the effects of teacher preparation on pedagogic understandings and competence. The data gathered, which included self-reported progress and observations by ‘supervisors’, identified changes in the teaching of the participants and, perhaps more significantly, the spread of their influence over other staff. Evidence of a shift from teachers to learners’ needs was seen in the preparation for teaching, in the presentation of classes and in collegial conversations about teaching and learning. Participants typically reported that they were less focused on myself, and more aware of the students’ need to understand, demonstrating changed conceptions of teaching and learning (p. 70).

A further perspective on the effect of TPPs on teacher beliefs was provided by Akerlind (2007) who argued that individual academics experience the world of teaching differently and therefore hold different conceptions of it. She identified five different approaches to developing as a university teacher and suggested that these are hierarchical with each stage building on the previous. The five stages are: a focus on improving content knowledge or what to teach; building experience in how to teach; building a repertoire of teaching strategies to be a more skilful teacher; determining which strategies work in order to be an effective teacher, and finally, understanding what works and why in order to effectively facilitate student learning (p. 27). The findings of the study assert that only when academics are focused on the development of a repertoire of teaching strategies will they be interested in development workshops. Any attempt to introduce them to notions of reflection or teaching portfolios will have little effect if their view of teaching development is focused on improving their content knowledge. This is an interesting finding in terms of debates about whether TPPs should be compulsory.

Similarly Entwistle and Walker (2000) suggest that there is a ‘nested hierarchy of conceptions of teaching’ and that more sophisticated understandings emerge from experience as individuals create their own knowledge of teaching over time (p. 352). They suggest that by developing ‘strategic alertness’ teachers can use their experiences to improve their teaching (p. 357). Other studies (Woods & Jeffrey, 1996; Trigwell & Prosser, 1997) report
similar conclusions suggesting that seizing on classroom opportunities for ‘teachable moments’ or ‘learning moments’ can be significant events in changing conceptions of teaching. However, this assertion has been challenged by Norton, Richardson, Hartley, Newstead and Mayes (2005) who claim genuine development only comes about by changing teachers underlying conceptions of teaching and learning.

Prebble et al. (2004), Knight (2006) and Ginns, Kitay and Prosser (2008) concluded that teaching development programs which are based on conceptual change models can be effective in shifting teachers’ beliefs from a teacher-centred to a more student-focused approach to teaching. These changed conceptions then have the potential to influence student learning if there is a consequential shift from teaching and learning experiences which focus on memorisation and routine tasks for surface learning, to approaches which emphasise understanding and application of concepts which promote deep learning (Hanbury et al., 2008). Kember and Kwan (2000) adopt a slightly different schema characterising lecturers’ conceptions of teaching, as content-centred and learning-centred (p. 475). They then identified four subcategories of teaching: teaching as passing on information; teaching as making it easier for students to understand; teaching as meeting learning needs, and teaching as facilitating students to become independent learners (pp.477-478). Each of these conceptions is manifested through teacher behaviours such as motivational approaches, teaching strategies, attention to and engagement of students and assessment practices. Other studies also have indicated a close relationship between conceptions of teaching and approaches to teaching, and between approaches to teaching and student approaches to learning (Hanbury et al., 2008; Kember, 1997; Biggs, 1987). McAlpine and Weston (2000) state this relationship quite categorically: *Fundamental changes to the quality of university teaching . . . are unlikely to happen without changes to professors’ conceptions of teaching* (p. 377).

Eley (2006) suggests that the relationship between teacher conceptions and teaching practice is more tenuous, being one of *espoused conceptions and reported approaches* (p. 193). This view is supported by Kane, Sandretto and Heath (2002) who caution that we should view the connection between teacher beliefs and their actions as tentative. They challenge the legitimacy of a number of studies which claim to measure the impact of TPPs on conceptions of teaching, arguing that in most cases the studies rely on self-reporting and do not observe teachers’ practice and are therefore unable to discriminate between what are the espoused theories-of-action and the theories-in-use. According to Argyris, Putnam and McLain Smith (1985) the difference between these is that an espoused theory communicates aims and intentions about behaviour in a certain situation, while theories-in-use determine the actions. Despite these cautionary conclusions, Postareff et al. (2004) confirm that, in general, academics who participate in extended pedagogical training which challenges conceptions of teaching demonstrate positive self efficacy in regard to teaching beliefs, considerably more so than those who take short courses and remain uncertain of their understandings of teaching and their abilities. What becomes apparent from the literature is that in order to measure the impact of TPPs on conceptions of teaching, longitudinal studies which include observation and analysis of teaching materials are likely to provide more reliable evidence than self-reports alone.

Teacher behaviour

According to Rust (2000) there is evidence that higher education teachers with a post graduate teaching qualification receive better student feedback ratings than those who do not hold such qualifications (p. 255). Leaving aside variables such as motivation, aptitude and experience it would be reasonable to expect that completing such a qualification would have some effect on teacher behaviour and a number of studies have drawn this conclusion (Breda,
A number of studies support Donnelly’s findings. Godfrey, Dennick and Welsh (2004) reported improved teaching practices as a result of a training program for medical teachers. Using a pre and post training survey, participants reported using a greater range of teaching techniques, more successful implementation of strategies and sustained changes in their teaching following training. While acknowledging the weakness of self-reporting instruments, the researchers concluded that TPPs can lead to changes in teaching behaviours (p. 847). Similar findings were evident in the study by Spafford Jacob and Goody (2002) with participants reporting the use of new techniques to make lectures interesting, stimulate group discussion, encourage student participation and elicit questions and feedback from students. McArthur, Earl and Edwards (2004) undertook a comparison of two groups of academics; one had completed a graduate certificate in higher education while the other had not. They found that both groups displayed a good level of student focus and the use of various interactive techniques to sustain student involvement and attention during lessons (p. 4). However, on closer examination of their responses it became clear that the group who had completed formal training used more problem solving, group discussion, interactive tasks and adopted a more sophisticated structure to classes using pacing and variety to engage students. The group with no formal training relied on their content knowledge and personality to maintain attention. The researchers viewed their findings with caution, however, concluding that the difference between the two groups was minimal and that the benefit of the training appeared to be in assisting less experienced teachers to develop more quickly.

Several studies have concluded that participation in TPPs can have an impact on overall approaches to teaching. Participants in Knight’s (2006) study reported that following completion of the PGCE their approach to teaching practice was more informed by educational theory, was more geared to student-centred learning, more competent in the theatre of learning and reflected a better understanding of the student perspective (p. 20). Hanbury et al. (2008) confirm these findings reporting that following completion of a teaching preparation program, participants perceived their teaching to be more student-focused, which was reflected in their teaching practices, curriculum development and confidence in taking risks and trying new approaches (p. 477). They attributed the latter to having a theoretical framework within which to evaluate their teaching. Significantly, participants reported that these improvements occurred only after they had opportunities for practice and reflection over time (p. 475). Similar findings of delayed transfer of learning have been reported in other studies (Kirkpatrick, 1996; Cilliers & Herman, 2010).

There are a number of studies which report a link between the impact of TPPs on teacher behaviour and an increased interest in the scholarship of teaching and learning. Healey (2000) takes the position that teaching and learning in higher education are inextricably linked to the scholarship of teaching within disciplines and that engagement with the scholarship of teaching will lead to improvements in teaching and learning. The term ‘scholarship of teaching’ is used often in the field of academic development, yet is rarely defined. Prosser and Trigwell (1999) drew on the relevant literature to identify three strands which define the scholarship of teaching. These are engagement with the research on teaching and learning, reflecting on personal teaching and student learning experiences within a particular discipline, and sharing knowledge and practice about teaching and
learning, both within the discipline and more generally. Huber and Hutchings (2005) conclude that encouraging and supporting scholarship in teaching and learning is fundamental to improving student learning and TPPs, and centres for teaching in general, can provide the backbone for ongoing efforts towards faculty’s development as scholars of teaching and learning (p. 121).

Despite the positive relationship between TPPs and improvements in teaching practices reported in the literature, some studies have suggested that one factor which limits the impact of TPPs on teacher behaviour is the lack of discipline specific material presented during the programs. Jenkins (1996) argued that when planning programs academic developers must recognise the importance that staff attach to their discipline if they wish to maximise their impact. Others emphasise the importance of the discipline in academic identity (Becher, 1994; Diamond & Adam, 1995; Gibbs, 1996; Jenkins, 1996; Boud, 1999; Reid, 2002), while Kolb (1981) identified the different learning styles of different disciplines and the implications of this for teaching preparation programs. Shulman (1986, 1987) also emphasized the need for teachers to have not only knowledge of their discipline, but also how best to present the particular concepts, methodologies, issues and insights to their students. Lindblom-Ylänne, Trigwell, Nevgi and Ashwin (2006), in their study of over 300 higher education teachers, found a strong relationship between approaches to teaching and academic discipline. Predictably teachers of ‘hard disciplines’ (physics, chemistry and mathematics) adopted more teacher focused approaches, while those in the ‘soft disciplines’ (history, art, philosophy) were more student focused (p. 294). Furthermore, teachers of the ‘hard disciplines’ reported the highest levels of self-efficacy, perhaps because of the linear and straightforward teaching content (p. 295).

The studies which report attempts to measure the impact of TPPs on teacher behaviour tend to rely on interviews, Likert-type-scale surveys or observations. These are variously administered following the program, a short time later or after a longer period, for example a year. Gibbs (2003) warns that studies which rely solely on self-reporting with no corroborating evidence are likely to draw flawed conclusions about the impact of TPPs on teacher behaviour. There is also some suggestion that the timing and nature of the measurement tool affects the data collected, with surveys unlikely to reveal the deeper understandings which can be communicated through guided conversation (Rust, 2000). In his study, Rust illustrates the advantages of drawing on a range of data sources including participant feedback via surveys and guided conversations, observations of teaching and the submission of a teaching portfolio. In almost all cases behavioural change following participation in the TPP was not only reported, but also observed in the organisation of lectures, the use of new activities in lectures, the alignment of course materials and assessment, engagement with reflection for improvement, and consideration of the students’ expectations and views in the development of course and teaching materials. The researchers acknowledged that although the study reported and evidenced changes in teacher behaviour, no conclusions could be drawn about outcomes for students (Rust, 2000, p. 259).

In general, the literature confirms that it is possible to evidence a shift from teacher-focused to student-focused approaches in teaching and learning following participation in professional development programs. Academics also report feeling more confident and less stressed about teaching, having expanded repertoires of teaching strategies and being more aware of improved outcomes for their students (Smith & Bath, 2003; Giertz, 1996). Kinchin (2005) cautions the need to use multiple sources of evidence as self-reported improvements may, in fact, be quite superficial.
Student engagement and approaches to learning

The role of academic developers is frequently described as facilitating improvement in the quality of teaching and learning (Eggins & MacDonald, 2003). However, those conducting TPPs have little direct contact with students to be able to assess their effectiveness in achieving this goal. Furthermore, the literature on the relationship between TPPs and student learning is not only scant, but at times confusing or contradictory. For example, some studies have concluded that there is little evidence regarding the impact of training on teaching and even less evidence of impact on student learning (Taylor, 2006; Gilbert & Gibbs, 1999; Weimer & Lenze, 1997), while others suggest a positive, albeit indirect, relationship (Gibbs & Coffey, 2004; Hanbury et al., 2008).

Horsburgh’s (1999) study into the factors which impact on student learning suggests that TPPs can influence student learning by assisting teachers to adopt teaching approaches which encourage deep learning. Students interviewed in the study revealed that how teachers teach, assess and help them learn have a direct influence on their learning. They listed expertise in the discipline and an ability to relate this to the workplace as important characteristics of effective teachers in addition to giving clear explanations, being well organised, presenting learning material at an appropriate level, being enthusiastic, giving helpful feedback, using relevant assessment tasks and having realistic workload expectations, all characteristics of good teaching as described by Ramsden (1991). Furthermore, the students identified and valued teachers who ‘asked critical and challenging questions’ and ‘stimulated discussion’ thereby encouraging a deep approach to learning. Simply put the more students practice, discuss, write, get feedback, problem solve, study etc., the more they are likely to learn (Shulman, 2002; Kuh, 2003). The researchers found a link between the teachers who used these techniques and participation in TPPs. However, other studies suggests that the relationship between engagement in class and student learning may not be as strong as expected since learning outcomes are influenced by many factors (Ewell, 2002; Klein, Kuh, Chun, Hamilton & Shavelson, 2005; Carini, Kuh & Klein, 2006).

Perhaps the most cited study in terms of the impact of TPPs on student learning is that of Gibbs and Coffey (2004). Their extensive international investigation, which drew on evidence from student ratings of teachers, teachers’ self-perceptions of being either student or teacher focused and whether students had deep or surface approaches to learning makes a convincing case for the importance of TPPs in higher education institutions. The participants included ‘trained’ and ‘untrained’ academics and their students, and data related to teaching quality and student learning was collected before, during and a year after the completion of the program. They concluded that participation in a TPP increased the adoption of student focused approaches in teaching and improved the quality of teaching in aspects such as enthusiasm, organisation of learning experiences, use of group techniques and rapport with students. They also reported a strong correlation between improved teaching and the adoption of deep learning approaches by the students. These findings were confirmed some years later by Hanbury et al. (2008) who also found that when teachers adopt a student focused approach to teaching following participation in TPPs, their students adopt deep learning approaches to their studies. This was determined through classroom surveys which gathered data on the amount of time students spent on a course, their participation in class, their interest in learning, the degree of personal responsibility taken for their learning, the quality of their assignments, their exam results, and perceived quality of their education program as a whole. It is important to note, however, that these student perception related indicators are not a measure of student learning, a connection which is difficult, if not impossible, to establish (Meiers & Ingvarson, 2003; Prebble et al., 2004; Knight, 2006; Gibbs & Coffey, 2004). Rather, changes in these indicators following staff participation in TPPs may provide a basis for conclusions about the approach students take to their learning.
This position is supported by the comprehensive review of the literature by Prebble et al. which concluded that TPPs for academics can have a direct impact on teaching quality, which in turn can have a positive influence on student learning, but that the relationship between TPPs and student learning outcomes was indirect. Gosling’s (2008) report on the effectiveness of teacher development activities in the UK also notes that despite the belief that students will benefit from professional development workshops, the link between professional development of staff and improved student learning is indirect and in some cases unproven (p. 45). McAlpine, Oviedo and Emrick (2008) also highlighted the difficulty in tracking the impact of TPPs to student learning. In their highly structured study lecturers participated in a workshop on curriculum design for improved student engagement. Over 1000 students then completed a questionnaire comparing their learning in the redesigned courses with that in previous courses. While their responses suggest improvements in their learning, the researchers concluded that this revealed more about the curriculum than about the individual teaching practices of the lecturers.

This highlights the ambiguity of some data which was also reflected in an earlier study by Horsburgh (1999) which tracked the introduction of a teaching and learning innovation. Prior to implementation teachers attended professional development which they reported led to increased collegial dialogue around teaching and learning, a greater focus on student oriented approaches and a heightened interest in improving their teaching. When surveyed the student responses indicated that the program was more academically rigorous..., more problem and case study-based, more capability-focused... and taught in such a way as to encourage critical thinking and independence, compared with responses to previous teaching which was perceived to be technical and task-based (p. 19). While the study concluded that professional development activities can have an effect on student learning, this again may be a case of the curriculum design contributing to improved student outcomes rather than the teaching per se.

Further evidence of the complexity of trying to measure effectiveness of TPPs on student learning is outlined by Devlin (2008) who notes that designing and conducting research to this end is a challenging endeavour (p.12). Devlin’s year-long study involved two groups of academics with one undergoing a teacher development program intended to improve their teaching practices, increase their focus on student approaches to teaching and learning and improve student learning. The effectiveness of the program was then assessed using student evaluations of teaching, staff self-evaluations, a teaching orientation questionnaire, student learning outcomes, teachers’ journal entries and a treatment package effect measure which was a questionnaire which asked participants to rank aspects of the intervention (p. 13). While it is claimed that the intervention was somewhat effective in improving specific aspects of the quality of participants’ teaching, a number of challenges emerged in relation to drawing meaningful conclusions from the data (p. 13). In particular it was noted that changes in classroom practice following participation in TPPs are not immediate and therefore any impact on student learning outcomes is difficult to track. There was also evidence of a cyclical relationship between changes in teaching practice resulting in improved student learning outcomes which then stimulate further changes in teaching practice. This cyclical relationship occurs over time which complicates attempts to establish a relationship between TPPs and student learning.

The complex nature of student learning further exacerbates efforts to determine the impact of staff participation in TPPs. Shavelson (2010) defines student learning in higher education as a permanent change in observable behaviour over time (p.9). Typically this is measured in higher education institutions by indirect measures such as graduation rates, progress and retention rates, student satisfaction or employment rates (Crosling, Heagney & Thomas, 2009). However, these measures do not describe the actual learning or changes in student behaviour. Shavelson believes that instead, universities should be interested in measuring not only knowledge and
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reasoning in the disciplines, but also students’ broad abilities in critical thinking, analytical reasoning, problem solving, communicating and individual and social responsibility, all of which take time to develop and mature (p. 186). Given that these attributes develop over time it is likely that student learning will be influenced by a number of teachers, rather than by one semester of study with one teacher, casting further doubt on whether TPPs can have a direct influence on student learning. In addition, leaving aside personal circumstances, a number of other ‘educational’ factors may impact on student learning, further confounding attempts to draw strong links between participation in TPPs and student learning outcomes.

Horsburgh identified the significance of the other ‘educational’ factors asserting that even if there are changes in teacher behaviour, unless other characteristics of the learning environment and education process are transformative in enhancing and empowering the student, it is unlikely that quality teaching alone will lead to improved student learning (p. 10). In this sense, transformation refers to the ways in which students acquire knowledge and skills and apply them to the wider context. Most universities now identify graduate attributes which acknowledge employer expectations such as a high level of discipline knowledge, analytical abilities, synthesis and critical appraisal, personal qualities of adaptability, flexibility, self-motivation and confidence, social skills for effective interaction in teams, and interpersonal and communication skills. Quality learning experiences are those which transform the conceptual abilities and self-awareness of the student and provide the skills and abilities to contribute actively to a rapidly changing world (Ramsden, 1993). Horsburgh identifies eleven elements which are necessary for a transformative educational experience: curriculum, learning processes, assessment, teaching and teachers, learning resources and support, institutional systems and structures, organisational culture and socio-economic and political context (p.11). On closer examination more than half of these can be said to be of an ‘institutional’ nature rather than a ‘teaching’ nature, suggesting that universities need to pay attention to the culture surrounding teaching and learning activities.

Institutional Culture

A number of studies have investigated the relationship between institutional culture and the impact of the work of academic developers (Buckridge, 2008; Cilliers & Herman, 2010; Hanbury et al., 2008; Toth & McKey, 2010). Trowler (2002) noted that instigating and managing change in a university can be problematic with academics often reluctant to engage with innovation. Weimer (2007) considered the overall impact of academic development efforts on institutional culture, the valuing of teaching and predominant pedagogical practice. She argued that over the past 30 years there has been little impact on the quality of teaching in higher education in terms of the valuing of teaching and pedagogical practices, but suggests that it has made a difference in the lives and teaching of many individual faculty members and therefore has benefited the learning experiences of even more students (p. 6). In seeking to understand why the impact is limited to individuals and why so many university staff continue to teach with very little understanding of teaching and learning, Weimer addresses issues of nomenclature, understaffing of development units and resultant staff burnout, insufficient funding, frequently changing administrative structures, and increasing pressure to demonstrate accountability in ways which are at odds with the very goals of academic development (p. 6.). Knapper (2003) in his report card on educational development suggests that in terms of effects on higher education practice ... we (academic development) would earn at best an A for effort, but probably a C for impact (p. 7). He points to the financial, social and political context within which universities operate as limiting factors, and concludes that an A for effort and a C for impact could be considered commendable under the circumstances (p.7).
Trowler and Bamber (2005) explore the intersection of policy and institutional capacity and culture and highlight the gulf which exists between effecting change in individual teacher behaviour and achieving more widespread institutional change. In particular, they contend that the expectation that change at one level of an institution will automatically translate to change at another broader level is fundamentally flawed and exaggerates the power of agency over that of structure, seeing individual actors as prime movers and shakers in social change (p. 6). Dill (1999) agreed that while academic development units certainly enable individual academics to enhance or improve their teaching, the dominant orientation of the programs is to individuals rather than to departments, disciplines or institutions. What is needed to bridge this gap according to Dill, is an understanding of the theory of change, intelligently applied to realistic policy development and implementation based on exemplars of best practice, genuine support and expectations of gradual change. However, Trowler and Bamber (2005) caution that even well formulated policy needs to be complemented by an ‘enhancement culture’, and ‘institutional architecture’ if TPPs are to effect broader change.

An enhancement culture is one in which staff are encouraged to share and question their current teaching beliefs, knowledge and practices with a view to solving problems, improving practice and reflecting on the gap between their knowledge and practice. This culture must be complemented by a learning architecture which includes mechanisms for systematic review processes, sharing of successful practises and benchmarking activities (Trowler & Bamber, 2005). An absence of such a culture severely limits the potential ripple effect of academic development programs.

The significance of the enhancement culture was a major finding of a study by Ginns et al. (2008) which investigated the impact of a GCHE on conceptions of teaching and approaches to teaching. Their findings, which correlate with those of earlier studies (for example Colquitt, LePine and Noe, 2000) suggest that both individual and organisational factors such as support from senior managers and peers, and collegial networks are critical to the transfer of learning from academic development programs. Cilliers and Herman (2010) and Asmar (2002) also emphasise the importance of a supportive institutional environment. Such an environment is characterised by providing academic development opportunities for staff who wish to improve their teaching; attending to the status of teaching within the institution through recognition and reward of teaching achievements; providing funding to support initiatives aimed at improving teaching, funding the scholarship of teaching, and creating an enabling environment for academics (Cilliers & Herman, p.7). Improvement in teaching in this context is viewed as progress along a continuum from non-reflective teaching practice through reflective teaching practice to scholarly teaching and finally to a contribution to the scholarship of teaching and learning (p.7). An enabling environment is then seen as one in which academics are not expected to progress to a prescribed level, but rather encourages all to become at least reflective teachers and some to become scholarly, perhaps leading to more widespread institutional change over time. This approach acknowledges the stress of ‘change overload’ felt by academics under pressure to improve their teaching, lift their publication rate and cope with the demands of a diverse student body (Lomas & Kinchin, 2006).

Spafford Jacob and Goody (2002) identified a number of contextual and cultural barriers to the development of an enhancement culture. These included lack of school/faculty support for programs with attendance having to be squeezed into a schedule that is dominated by research agendas, administration duties and the actual preparation and delivery of lectures (p.1), lack of funding and resources, lack of interest from colleagues and a resistance to change or new teaching ideas (p.7). As a consequence of these barriers the majority of the participants in their survey indicated that they had very little or no influence on the enhancement of teaching in their school (p.8). Gibbs and Coffey (2004) describe this dichotomous situation as an alternative culture which exists within the training program, but
is not representative of what occurs in departments or faculties (p. 98). A number of studies (Walker & Entwistle, 1999; Kogan, 2002; Ginns et al., 2008; Southwell & Morgan, 2010) agree that changing the teaching practice of individual academics through TPPs is of little value without support at all levels of the institutional hierarchy and a genuine commitment to cultural change.

Other studies (Buckridge, 2008; Ginns et al., 2008; Klenowski, Askew & Carnell, 2006) have pursued the relationship between the scholarship of teaching, TPPs and the impact on institutional culture. In particular, Buckridge investigated the impact of teaching portfolios developed during TPPs suggesting that they should stimulate collegial dialogue about teaching and learning, a strengthening of the nexus between teaching and research, a more sophisticated institutional conception of teaching and a greater focus on the scholarship of teaching (p.123). However, in reality, the success of portfolios in stimulating such institutional change is limited by the culture of institutions which tends to value quantitative data related to research performance above qualitative teaching related data, particularly for promotional purposes. Within such a culture, academics are likely to be satisfied with reasonable teaching results and devote more energy to research activities which will be more highly valued by the institution (Buckridge). Boyer (1990) believes that institutions have a responsibility to recognise ‘the scholarship of teaching’ equally with research if they are serious about effecting change in teaching practices in higher education. Rather than the scholarship of teaching and learning and disciplinary research being competing priorities where ‘more of one necessarily leads to less of the other’ (Asmar, 2002), there is an argument that there should be a ‘synergy’ of teaching and research which would improve the status of teaching and learning in institutions (Boyer, 1998). This was certainly not the case in Donnelly’s (2000) study where participants lamented the lack of interest in discussing, changing, supporting or researching student learning within their departments (p. 209). Nevertheless, Donnelly challenges academic staff not to give up despite the prevailing attitudes, but to continue to seek opportunities for collaboration within their departments since it is only by these individuals continuing to take action to alter their own environments that there is any chance for deep change (p. 215).

The notion of ‘learning architecture’ (Dill, 1999) is associated with the procedures within universities for accountability and improvement which might include processes for systematic review and benchmarking, for dissemination of best practice in teaching and learning and for supporting innovation and experimentation in teaching (Trowler & Bamber, 2005). Institutions which focus solely on internal review procedures which mirror external processes risk developing a culture of compliance which results in the production of documents and policies rather than the development and sharing of new knowledge and skills related to teaching and learning (Dill, p.134). In contrast to this, the architecture of a learning organisation will privilege processes and activities which result in improved practice. Such organisations tend to have embedded procedures for the use of evidence as a basis for solving teaching and learning related problems; the coordination of teaching and learning activities within academic units; a systematic approach to gathering and using information from research, staff and past graduates to inform curricula innovations; system-wide coordination, support and review of the quality of teaching and learning, and institution-wide dissemination of new knowledge and best practice related to improving teaching and learning. Other studies (Huber, 1991; Szulanski, 1996) confirm that institutional learning requires not only a supportive culture, but also embedded processes which encourage and facilitate the sharing, borrowing and adoption of new ideas and practices from one section to another.

Hanbury et al. (2008) investigated the effects of academic development programs on
individuals and the relationship between programs and institutional missions and departments (p.1). Individual participants reported improvements to their own teaching (being more confident and student focused) and emphasised the importance of institutional support, particularly at the department level, in sustaining the benefits from TPPs (p.475). A number of department heads reported that staff who participated in TPPs acted as catalysts for the sharing of ideas about teaching and developed the language and confidence to discuss and challenge existing teaching and learning practices (p.478). This helped raise the profile of pedagogy and encouraged new staff to take a professional approach to their teaching. Other institutional benefits reported included the initiation of interdisciplinary collaboration, a greater awareness of the need to understand pedagogy in addition to discipline knowledge, and the development of processes for mentoring new staff. However, this was not a unanimous view, with some heads of departments commenting that TPPs were something to be got out of the way so that they can concentrate on research and strategic planning (p.480). In this context it is not surprising that many participants reported that although they appreciated the collegial networks they developed, they did not anticipate any career benefit from having completed a TPP, confirming their belief that their research portfolios would determine their success in promotion. This perception appears to be widespread as evidenced in Wright’s (1995) study in which academics across the world identified acknowledged greater recognition of teaching in the promotional process as having the potential to improve their teaching more than any other action, suggesting a significant gap exists between university culture and academic motivation (Ramsden & Martin, 1996). The challenge is for institutions to identify ways to define and measure excellence in teaching and the scholarship of teaching and learning just as they do for research (Jenkins, 1997).

Evaluation Frameworks

A number of studies have focused on the development of evaluation frameworks. Kirkpatrick's (1998) evaluation framework which includes the four levels of Reaction, Learning, Behaviour and Results (all four levels need to be considered to have a complete picture) appears to have informed the design of a number of models for evaluating academic development activities. Guskey (2000), as cited by Stes et al.,(2007) categorised and identified five levels of professional development evaluation (p.100) and Kreber and Brook (2001) propose six levels at which academic develop programs can be evaluated for impact. Together, these include:

1. participants’ perceptions/satisfaction with the program;
2. participants’ beliefs about and approaches to teaching and learning (Trigwell & Prosser, 2004);
3. participants’ teaching performance (including their use of new knowledge and skills);
4. students’ perceptions of staff’s teaching performance;
5. students’ learning; and
6. the culture of the institution (including institutional change). (See also Trowler & Bamber, 2005).

While these frameworks are helpful in identifying what to evaluate, a number of contextual factors must also be considered. The time frame in which change can be expected will vary depending on what is being measured. For example, participant satisfaction can be identified during, immediately after or some time following the TPP. However, identifying changes in teaching practices or in student learning would be expected to take considerably longer to become evident. Ramsden (2003) estimates that it can take five to ten years for changes to teaching practice before evidence of improvement to the student learning experience can be expected. This position is supported by Knight’s (2006) investigation of the effectiveness of preparation programs in which past and current participants of a TPP were surveyed. Past participants tended to rate the program as more effective than current participants, suggesting
that further experience and reflection over time are integral to the ultimate success of the programs. Furthermore, other factors such as teaching experience, duration of teaching preparation program, the history and context surrounding the formation of initial conceptions of teaching (Postareff et al., 2007) and institutional architecture and climate (Trowler & Bamber, 2005) can all influence the impact of TPPs.

Frameworks for the evaluation of TPPs must also consider the purpose or intended outcomes of the programs, which vary considerably. Longer, intensive, more formal programs tend to focus on building understanding and capacity in terms of pedagogical approaches appropriate to learners in higher education. Shorter courses and workshops tend to have a single intention such as providing orientation, disseminating information or instructing in particular skills. Lewis (1996) suggested that, in general there were three main intentions of professional development activities: to initiate instructional improvement, to facilitate organisational improvement and the personal development of participants. Gilbert and Gibbs (1999) identified five theoretical frameworks or models that commonly inform the purposes of teaching preparation programs. These change models include:

1. Behavioural Change - changing classroom teaching behavior;
2. Development Change - changing from a focus on teacher and subject, to the subject and student (passive), to teacher and student (active) and finally to students (independent);
3. Conceptual Change - linking the teacher's conceptions of teaching to their teaching intentions and the strategies they use;
4. Reflective Practice - development of teachers as reflective practitioners;
5. Student Learning - changing focus from teaching to student learning, encompassing students' approaches to learning, students' perceptions of their learning environments and their learning outcomes.

McLean, Cilliers and Van Wyk (2008) take a broader approach identifying the five main purposes of TPPs as being: to orient new staff into the policies, processes and academic culture of the institution; to develop specific skills in line with institutional priorities; to enhance teaching and learning; to develop the scholarship of teaching, and to develop educational leadership. Nickols (2000) views professional development as a management tool identifying 14 purposes of professional development, none of which relate to student learning. More recently Grasgreen (2010) included a more institutional focus claiming that the purpose behind the surge of interest in encouraging participation in teaching certificate courses is about investment in future staff and quality assurance.

Table 1 lists a number of studies that are indicative of those investigating the impact of TPPs in one or more of the domains of change. Table 1 also identifies the different types of programs and their different purposes and outcomes. As the outcomes from these various models and types of TPPs differ depending on their purpose, there would be little sense in applying the same measures of effectiveness and impact to them all. The challenge then is to determine a framework of indicators which can be adaptable to the various context and purposes. The Preparing Academics for Teaching in Higher Education (PATHE) project which articulated principles and developed a framework for the evaluation of foundations of university teaching programs also acknowledged the importance of clarity of purpose and contextual issues in designing and applying evaluation frameworks (Bowie et al., 2009).

Indicators of Impact

The last twenty five years have heralded significant changes in higher education institutions, many of which have been directed at improving the quality of educational experiences for students. A consequence of this has been the push to provide evidence of efficiency, effectiveness and improved quality in teaching and learning (Guthrie & Neumann, 2007).
Academic development units which have a central role in advancing the quality of teaching and learning within institutions are also increasingly being expected to demonstrate the effectiveness of their TPPs. While Gray and Radloff (2008) suggest that this necessarily will rely on external evaluation and validation, with benchmarking and self-regulation as starting points (p.104) it is also important for institutions to gather a variety of data from different sources to develop a comprehensive picture of the impact of all types of TPPs offered (Stefani, 2011; Poole & Iqbal, 2011).

Although evaluations of academic development programs have been a part of the higher education landscape for some time (Carroll, 1980; Abbott, Wulff & Szego, 1989; Weimer & Lenze, 1997; Rust, 2000; Adamson & Duhs, 2004), the question of when and how best to measure the impact of academic development programs remains largely unanswered. If we understand the term impact to refer to final or longer term effects, influences or changes as a result of a project or program of activities then, in an ideal situation, indicators of impact would be developed concurrently with academic programs, enabling not just the collection of base line data related to intended outcomes, but the ongoing collection of data. The more common practice, however, is that institutions use a range of post program measures or indicators of effectiveness or satisfaction. Cave, Hanney, Henkel & Kogan (1997) identified three kinds of indicators:

1. Simple indicators are usually expressed in the form of absolute figures and are intended to provide a relatively unbiased description of a situation or process.
2. Performance indicators differ from simple indicators in that they imply a point of reference; for example, a standard, objective, assessment, or comparison, and are therefore relative rather than absolute in character.
3. General indicators are commonly externally driven and are not indicators in the strict sense; they are frequently opinions, survey findings or general statistics. (p. 9)

Higher education institutions tend to use performance indicators to monitor their own performance, which not only assists in the evaluation of their operations but also enables them to collect data for external audits, and government accountability and reporting processes (Rowe, 2004). Guskey and Sparks (2002) argued that the most important qualities of professional development can be grouped into three categories: content characteristics, process variables and context characteristics, which should form the basis of the development of indicators. There is, however, considerable agreement that four types of indicators are suitable: Input, Process, Output, and Outcome (Cave et al., 1997; Carter, Klein & Day, 1992; Borden & Bottrill, 1994; Richardson, 1994; Chalmers, 2008; Shavelson, 2010). These can be more broadly categorised as Quantitative and Qualitative indicators. Quantitative indicators are based on numerical assessments of performance and are typified by Input and Output indicators. Input indicators refer to the human, physical and financial resources dedicated to particular programs, while Output indicators refer to the results of the programs which are measurable. Qualitative indicators use non numerical assessments of performance and include Process and Outcome indicators. Process indicators reveal how programs are delivered within the particular context referring to policies and practices related to learning and teaching, performance management and professional development of staff, quality of curriculum and the assessment of student learning, and quality of facilities, services and technology (Chalmers, 2008, p.12). Outcome indicators focus on the quality of provision, satisfaction levels and the value added from learning experiences.

There is increasing commentary on the validity of the various types of indicators (Guthrie & Neumann, 2006; Blackmur, 2007; Rutkowski, 2007; Coates, 2007; Ramsden, 1991). Burke et al. (2002) and Chalmers (2008) comment on the limitations of Input and Output indicators which tend to generate statistics which reveal how much or how many, but say little about
quality and may actually inhibit the analysis of teaching and learning processes, experiences and interactions which could be more enlightening. Outcome and Process indicators do provide information about quality, but because they are more difficult to measure and often produce tentative results they are used less frequently (Romainville, 1999). Others studies have concluded that an emphasis on Output or Outcome indicators over Input and Process indicators is likely to result in unbalanced information which could lead to inaccurate conclusions about provision (Borden & Bottrill, 1994; Burke & Minassians, 2001). This is at odds with the prevalence of an accountability focus on inputs, outputs and systems, rather than processes and outcomes which are seen as more ‘troublesome’ indicators of quality and therefore avoided (Cave et al., 1997).

Despite the reservations, there is general agreement that the use of Process indicators is appropriate and useful for generating information related to teaching and learning in higher education (DEEWR Report 2008). The information generated then needs to be interpreted and contextualised with data provided from the other types of indicators. Collectively these indicators can provide a comprehensive picture of the quality of teaching and learning activities suggesting that no one type should be privileged over another (Chalmers, p. 7) and indeed, multiple sources of both quantitative and qualitative data will avoid erroneous interpretations being made (Canadian Education Statistics Council, 2006; Rojo, Seco, Martinez & Malo, 2001). Guthrie and Neumann (2006) also emphasise that indicators must be understood as interrelated and linked and should only be interpreted in light of contextual information concerning institutional operation, and with the purpose for which the information is being used, made explicit.

As the majority of data resulting from the use of indicators is often diverse, the process of determining ‘fitness for purpose’ is extremely important and requires extensive consultation (Cabrera, Colbeck & Terenzini, 2001). This raises questions about the integrity of indicators and measures of effectiveness applied broadly to make judgements on quite discrete programs. The selection or development of indicators of impact should take account of the intended outcomes of TPPs, the context of provision, the reliability of the data to be collected, the need for an efficient and informative process and the importance of varied data types and sources.

The most common sources of data used in studies of the impact of TPPs include pre and post inventories, surveys, questionnaires, interviews, document analyses, comparative analyses, multivariate analyses, conceptual analyses, phenomenography and peer observation (Tight 2004, p. 397). Specifically these may include staff self assessments, student surveys of satisfaction, changes in student performance, inventories of teaching or learning approaches, teaching awards and peer assessment. Questions have been raised about the validity of the data generated by these quantitative and qualitative techniques. Quantitative methods can be problematic if the data generated from a range of programs is aggregated since it might diminish the effectiveness of a particular program and limit the validity of the conclusions (McArthur et al., 2004). Kane et al., (2002) signal a potential problem with the use of questionnaires or multiple-choice-type inventories about teacher conceptions and beliefs claiming that they limit the thinking of participants and may reflect the self-fulfilling prophecy rather than reality. Richardson (1996) noted that these methods are too constraining and may not validly represent teachers’ beliefs (p. 107). McArthur et al. drew a similar conclusion citing the example of a study which made comparisons between teachers who had completed a Graduate Certificate in Higher Education and those who had not. While the quantitative data suggested that there was little difference between the groups on a range of measures, the qualitative data revealed a number of subtle yet significant differences. McDowell (1996) however, suggested that interviews and surveys also can be problematic in
that participants might in fact respond with what they consider to be ‘right’ answers, making it difficult to draw meaningful conclusions (p. 140).

Gardner, Holmes and Leitch (2008) support the use of what they term ‘soft’ indicators as evidence of impact when ‘hard’ indicators such as improved learning, higher standards and changed behaviour are difficult to measure (p. 96). ‘Soft’ indicators include real life stories...bottom up evidence and anecdotes (Campbell, Benita, Coates, Davies & Penn, 2007, p. 22) and although they may be considered untidy (Gardner et al., p. 97) they nevertheless provide a useful source of evidence in situations where complex causal relationships make it difficult to draw conclusions. The Gardner et al. study, which focused on indicators of impact of an educational intervention, identified media references, publications, presentations, ‘good news stories’, project cameos, short anecdotal quotes and accounts of engagement within the community as having value in the absence of more precise quantitative data (p. 101). Similar indicators of the impact of TPPs were identified in a study by Light, Calkins, Luna and Drane (2009) which collected evidence from participants using an Approaches to Teaching Inventory, teaching project reports, which detailed actual changes implemented, and post program interviews. Based on this evidence they reported that as a result of the TPP teachers had:

1. Redesigned assessment in their units to better engage students in learning required concepts, in one instance reducing the failure rate in the unit from 28 per cent to 5.5 per cent;
2. Formed strong ongoing relationships with colleagues they met through the program, and continued developing their teaching practice through dialogue or collaboration;
3. Drawn on their TPP experiences and subsequent improvements in teaching in preparing successful promotion applications;
4. Been nominated for and/or received teaching awards;
5. Published journal articles on work that grew out of the TPPs; and
6. Pursued further study in teaching and learning in higher education (p.107).

The Report of the European Science Foundation (2010) The Impact of Training for Teachers in Higher Education supported the use of such indicators stating that there is a need for reflective or ‘thick’ studies (Day 3, para 3) which will provide a different view from quantitative studies which tend to have a single focus and attempt to define causal relationships. Qualitative studies are able to give voice to successful interventions, why they work in particular contexts and, perhaps more importantly, to reveal unintended outcomes. Asmar (2002), in reporting on institutional wide changes in the culture surrounding teaching, learning and research, details how university wide staff-student forums were used to enrich the quantitative data collected through a modified CEQ and how collectively the data was used to not only challenge faculties to think about changing their teaching behaviour, but also to re examine their beliefs about teaching in a research intensive environment.

Kreber (2011) supports the use of comprehensive case studies which use thick descriptions of context and careful attention to the particulars of the situation in the evaluation of TPPs (p.55). Similarly, Sword (2011) reported on a longitudinal case study which involved the collection of a range of documents over time, providing much richer evidence of change following participation in a TPP than the more usual question of ‘what did you find most helpful about this program?’ (p. 128). Trigwell (2010), cited in The Impact of Training for Teachers in Higher Education agrees that frameworks of indicators tend to neglect a focus on the question of why courses have an impact, whether it be subtle or obvious. To make such a determination requires what Pawson and Tilley (2004) describe as realist evaluation (see also Pawson & Tilley, 1997 for realistic evaluation) which poses questions such as ‘What works for different individuals or groups?’ and ‘In what contexts and ways does it work?’ rather
than the more usual question of ‘Has this program worked?’ (p. 2). Drawing a distinction between program intentions and the reality of their delivery, they suggest that it is important to recognise that programs do not work in the same way for all participants. Furthermore, programs are embedded in social systems which can either enhance or limit the extent to which they benefit participants. Innovative pedagogical approaches can be presented and inspirational stories of success shared, but whether individuals ultimately take up the challenge of changing their practice depends on their capacity, their circumstances, the support of colleagues and their perception of institutional recognition of their endeavours. Pawson and Tilley (2004) caution the need to expect considerable variation in the pace, extent and depth of change which individuals might demonstrate following participation in TPPs.

Clearly this limits the value of using quantitative measures to determine the impact of TPPs. The unique quality of realist evaluation is that an end verdict of success or failure is not its intent, but rather it seeks to develop a clearer understanding of how programs might lead to diverse effects, or what Weiss and Bucuvalas (1980) term ‘enlightenment’ rather than ‘political arithmetic’. They caution that this position may not satisfy those who want to ‘see’ results and remain sceptical when the response to their questions of ‘Did that work? and ‘Do the results justify the means?’ is ‘That depends’. Although the conclusions drawn from realist evaluations might be partial and provisional they are nonetheless useful since they can lead to more tightly focused programs in the future (Pawson & Tilley, 2004, p.16).

Burke and Modaressi (2000) raise the issue of consultation in their review of the introduction of state level performance indicators in higher education in the US. They found that where there was extensive consultation prior to the introduction of performance indicators there was a greater commitment to their long term use, unlike the resistance experienced where consultation was minimal. Given the disparate views about the value of the various types of indicators it seems that any meaningful instrument to measure the impact of TPPs should include both quantitative and qualitative indicators, reflect the intended outcomes of the programs, take account of institutional context and engage the various stakeholders.

Training and Development

Many of the issues related to demonstrating the effectiveness of teaching preparation programs are not unique to the field of academic development. The business sector is equally concerned with the effectiveness of training and development initiatives. During the 1990s a great deal of attention was directed to the quality of training in an attempt to explain what, when, why and for whom training was most effective (Machin & Fogarty, 1997). This coincided with significant changes in the workplace, many precipitated by rapid technological advances which created an unprecedented demand for training in the use of new technologies (Thayer, 1997). More recently organisations have engaged in training and development activities in an attempt to improve their performance and competitiveness (Cromwell & Kolb, 2004). Training employees is seen as one of the most effective methods of improving productivity, communicating organisational goals, retaining valued employees and managing change in a competitive market situation (Marticchio & Baldwin, 1997; Morrow, Jarrett & Rupinski, 1997; Rothwell & Kolb, 1999; Barrett & O’Connell, 2001; Arthur, Tubre, Paul & Edens 2003; Bouteiller & Cossette, 2007; Bassi & McMurrer, 2008).

Despite these perceived benefits, organisations are often reluctant to invest in training programs without evidence of satisfactory returns for their investment. Generally speaking, for training to be deemed beneficial, individuals participating in the training need to take new knowledge back to the workplace and apply what they have learned (Hatala & Fleming,
2007; Wang & Wilcox, 2006). The effective and continued application of the knowledge and skills gained by trainees is known as transfer of training. The reluctance to commit resources to training programs is not unfounded in light of the number of studies concluding that the rate of transfer of training is poor, with estimates ranging from as low as 10 per cent to an optimistic 50 per cent take up rate (Broad & Newstrom, 1992; Kirwan & Birchall, 2006; Burke & Hutchins, 2007; Blume, Ford, Baldwin & Huang 2010). Consequently, while much of the early evaluation of training programs centred on feedback to the providers, what is of greater interest to organisations today is whether trainees have developed new understandings, skills or attitudes and the extent of transfer of these into the workplace. Therefore much of the research in the field has focused on attempts to isolate the factors which facilitate the transfer of training.

Transfer of training is said to have occurred when there is evidence of a change in work behaviour as a result of training interventions (Foxon, 1993, p.130). However, attempts to define transfer in terms of post training implementation are fraught with difficulty because they suggest that transfer happens at a point in time and is absolute, when in fact transfer may be partial at first and develop over time. Such definitions also assume that the learning can be identified, quantified and measured. In response to these issues Foxon developed a five step model which includes the intention to transfer, initiation, partial transfer, conscious maintenance and unconscious maintenance and suggests that this is a more realistic portrayal of what happens as learners experiment with new skills (p.131). Attempts to treat transfer of learning as a product fail to identify many of the nuances of transfer and to assess which skills have been tried, when, with what degree of success and why others have not been used (Foxon, 1994, p.1).

In reality the transfer of learning into the workplace is a complex process and many factors have been identified as having an impact on it (Marx, 1986; Georges, 1988; Broad & Newstrom, 1992; Burke & Hutchins, 2007). These tend to be clustered around the themes of motivation levels and trainee characteristics, training design and delivery and workplace environment (Holton, Bates & Ruona, 2000; Cheng & Ho, 2001). Some studies classify these more broadly as input factors (program design, the working environment and trainee characteristics), outcome factors (scope of learning expected and the retention of learning) and conditions of transfer (relevance of the training to the work context and supervisor support) (Baldwin & Ford, 1988; Foxon, 1993). More complex models designed to explain the effectiveness of training offer a more systems approach pointing to the relationship between the context before and after training, trainee characteristics, organisational variables and whether the focus of the training was cognitive, skills based or interpersonal (Cannon-Bowers, Salas, Tannenbaum & Mathieu, 1995). Despite these variations there is considerable agreement that the factors influencing transfer are learner characteristics, training design and delivery and organisational climate.

Learner characteristics

A number of studies have investigated the effect of motivational factors on the transfer of learning and identify the importance of trainees’ attitudes, interest, values and expectations (Noe, 1986; Baldwin & Magjuka, 1991; Tannenbaum, Mathieu, Salas & Cannon-Bowers, 1991; Foxon, 1993; Cheng & Ho, 2001; Pugh & Bergin, 2006; Pham, Segers & Gijselaers, 2010). It has also been found that motivation to learn will be increased by a positive pre training attitude, by training being mandatory and by expectations of post training accountability. This suggests that initiatives which enhance pre and post training motivation are worthy of consideration by organisations investing in training programs.
More recently Grossman and Salas (2011) reported, in their meta analysis of the sometimes contradictory research findings, that trainees with higher cognitive abilities and self-efficacy who are highly motivated and see the utility of training are more likely to transfer their learning. While it is not suggested that organisations should select only employees who display these characteristics for training, nevertheless there may be lessons for aligning recruitment practices with the goals of the organisation (Kirwan & Birchall, 2006).

Training Design and Delivery

The extent of training transfer also appears to vary as a function of the training design and delivery method, the skill of the trainer and the target skill or task. In terms of program design, Goldstein and Ford (2002) suggest that organisations which conduct a needs analysis to inform the design, development, delivery and evaluation of training programs are more likely to deliver an effective training program. In their meta analysis of training design and evaluation, Arthurs et al. (2003) found that training programs which adopt a mixed method approach incorporating lectures and practical tasks appear to be effective. Despite their poor image, however, lectures have been shown to be effective as a method of training for specific skills suggesting that web based training might also be effective (p. 242).

Lyso, Mjoen and Levin, (2011) investigated the use of action learning projects in training and development and reported that the approach was effective for the transfer of learning, particularly when immediate supervisors also participated in the project. Furthermore, they found that including goal setting and self-management strategies into training programs facilitated the transfer of learning (Tziner, Haccoun & Kadish, 1991; Burke & Hutchins, 2007; Robbins & Judge, 2009). This is in line with studies which found that training which is conducted in a realistic setting, is designed to include behaviour modelling and encourages the anticipation of problems, is conducive to the transfer of learning (Kraiger, 2003; Taylor, Russ-Eft & Chan, 2005; Keith & Frese, 2008; Grossman & Salas, 2011).

The timing of training programs also has been identified as an important consideration since the benefits of many training programs are inhibited by the lack of, or delay in, opportunity to apply the new knowledge and skills (Clarke, 2002; Arthur et al., 2003; Burke & Hutchins, 2007). Training which builds in both opportunity and time for participants to develop new skills in the authenticity of the workplace is likely to result in higher levels of transfer than programs which are delivered in isolation of context and need (Cromwell & Kolb, 2004).

Other studies have focused on the importance of follow-up for the transfer of training, asserting that the training program should not be an end in itself, but part of an ongoing process of development which is supported by the trainer and supervisor, emphasising the importance of the organisational context for effective training (Velada, Caetano, Michel, Lyons & Kavanagh, 2007; Blume et al., 2010).

Organisational Factors

A number of studies have investigated the significance of the work environment to the transfer of learning. A positive transfer climate is one in which trainees are reminded, encouraged and rewarded for using new skills, are assisted when having difficulty and are supported by supervisors and peers (Clarke, 2002; Holton et al., 2000; Colquitt et al., 2006; Gilpin-Jackson & Busche, 2007; Blume et al., 2010). Consequently organisations which embed cues, incentives, feedback methods and collegial support into the work culture are more likely to maximise the benefits of training programs. In particular, where supervisors are encouraging role models and the training is valued in the context of the work
environment, trainees are more likely to adopt new skills.

The importance of support appears to be underestimated in organisations with a number of studies suggesting that the perceived lack of supervisor support is a significant barrier to the transfer of learning (Broad & Newstrom, 1992; Richey, 1992; Winfred, Winston & Bell, 2003, Cromwell & Kolb, 2004; Chiaburu & Marinova, 2005; Salas, 2006; Salas & Stagl, 2009). Peer support has also been reported as influencing the transfer of training (Hawley & Barnard, 2005). The research suggests that the critical elements of peer support are the observation of others performing new skills, coaching and feedback while attempting new skills, and opportunities to share ideas and experiences (Chiaburu & Marinovich, 2005; Hawley & Barnard, 2005; Lim & Morris, 2006; Nijman, Nijhof, Wognum & Veldkamp, 2006; Gilpin-Jackson & Busche, 2007). In terms of feedback the important characteristics have been identified as the nature (positive or negative), the frequency, the source and the helpfulness of the feedback (DeNisi & Kluger, 2000; Maurer, Mitchell & Barbeite, 2002; Hatala and Fleming, 2007; Van den Bossche, Segers & Jansen, 2010).

Lyso et al. (2011) also found that the work environment has the potential to be a significant inhibitor of the transfer of learning. Their study concluded that although individual participants reported benefits for their own practice, a year after the training program there was no evidence of impact of the training on the organisation as a result of obstacles in the workplace (p.210). This is obviously not a new problem as Marx (1986) also suggested that during training, organisations should address the possible difficulties which might be experienced back in the workplace so that trainees can develop coping mechanisms. This highlights the importance of bridging the gap between the training and work environments to maximise the benefits of training programs. One way of doing this is to incorporate action planning into training courses so that strategies to facilitate the transfer of learning can be embedded in the work environment.

Measuring effectiveness of training

Effects of training can be analysed in terms of impact on individuals, organisations and national performance with the first two dominating the literature on measuring effectiveness. Studies into the effectiveness of training programs show that despite newer models being available (Day, Arthur & Gettman, 2001; Kraiger, Ford & Salas, 1993) the dominant form of evaluation of programs is based on Kirkpatrick’s (1975) four-level model (reaction, learning, behaviour, results).

Reaction criteria, which often use self-report measures, represent trainees’ affective and attitudinal responses to the training program. Learning criteria measure the learning outcomes of training, usually through a testing procedure, but are not measures of job performance. Behaviour criteria on the other hand are measures of actual on-the-job performance and can be used to identify the impact of training on actual work performance, usually determined using supervisor assessment (Arthur et al., 2003). Results criteria often involve an assessment of the dollar value gained from specific training.

Despite the lack of correlation between participant reaction and learning and behaviour change, reaction measures are most commonly used to measure effectiveness of training with as many as 78 per cent of organisations adopting this form of measurement (Van Buren & Erskine, 2002, p. 239). However, how trainees feel about or whether they like a training program doesn’t elucidate what they learned, how their behaviours or performance was influenced or what the effect was on the organization (Colquitt et al., 2000; Arthur et al., 2003). It is also interesting to note that when reaction criteria are used there is a trend to more
positive results than when the other levels of the model are used (Van Buren & Erskine, 2002), suggesting that organisations which rely solely on this first level for evaluation don’t have a complete picture of the success of their training initiatives.

While a number of studies have used other evaluation models many have methodological problems in that they focus on quite specific programs with little generalisation possible (Doucougliagos & Sgro, 2000) and others lack a strategy to isolate the training effect (Bartel, 2000). The one approach which seems to have a degree of credibility is utility analysis which relies on an analysis of the competencies that have developed and been transferred in the workplace as a result of training rather than the impact of training on organisational results (Phillips & Schirmer, 2008). This approach is particularly appropriate for assessing the influence of training on soft skills. The findings of several studies which have used utility analysis indicate that trainee job classification has the largest effect on program impact (Honeycutt, Karande, Attiea & Maurer, 2001; Collins & Holten, 2004; Powell & Yancin, 2010).

Despite the number of studies in the training and development literature which focus on the impact of training on organisational performance there is some doubt about the scientific validity of the studies (Thang, Quang & Buyens, 2010). While most organisations invest in training because they believe that higher performance will result, the theoretical framework underpinning a relationship between training and organisational performance has been the subject of some debate (Alliger, Tannenbaum, Bennett, Traver & Shortland, 1997; Lewis, 1997; Kozlowski, Brown, Weissbein, Cannon-Bowers & Salas, 2000; Fey & Bjorkman, 2001; Faems, Sels, DeWinne & Maes, 2005; Zwick, 2006). Some frameworks are based on the notion that improvement in individual performance will result in improved organisational performance (Devanna, Fombrun & Tichy, 1984) while others point to the importance of policies (Guest, 1987) or the relationship between HR practices and organisational strategies as fundamental to organisational outcomes (Wright & McMahon, 1992). More recent studies focus on the theoretical models of needs assessment, training design and evaluation strategies required to affect organisational outcomes (Kozlowski & Klein, 2000). In general what is common throughout these studies is an acknowledgement of the difficulty in demonstrating the link between individual training and organisational performance, congruent with the findings in relation to the impact of TPPs on student learning.

Conclusion

While the literature paints a picture of widespread and diverse TPP related activities in higher education in Australia and overseas, a great deal of uncertainty surrounds the question of whether these activities are having an impact. In Australia this uncertainty has been fuelled by the Bradley Report on Higher Education which revealed a worrying decline in student satisfaction with some aspects of their learning experiences (Bradley et al., 2008). This has generated a degree of reservation about the effectiveness of TPPs on teachers, students and the wider academic community at a time when teaching and learning in higher education are under scrutiny amid calls for accountability (Stefani, 2011). The lack of confidence is perhaps not surprising, given the lack of a commonly understood framework for evaluation.

Kreber (2011) points to the difficulty of developing such a framework when most academic development outcomes are intangible and rather than being end points in themselves, are part of the process of becoming which demands considerable investment of self by participants (p. 54). The changes which might occur as a result of participation in TPPs are designed to unfold slowly over time rather than be observable at a point in time (Sword, 2011). The implication of this is that evaluations of academic activity should include a focus on process
not just outputs, and the alignment between process and the intended outcomes of the program. The very fact that academic development deals with human responses suggests that attempts to measure outputs or outcomes will be challenging if not impossible.

Being cognisant of the inherent difficulties in evaluating the effectiveness of TPPs, there are some conclusions which can be drawn from the literature and which are relevant to this project. The studies cited indicate that it is possible to gather evidence related to changes in teacher’s conceptions of teaching, in teachers’ behaviour, in teaching approaches, and to student engagement and approaches to learning. It is also possible to examine context of provision in terms of the institutional architecture and enhancement culture. The evaluation process should involve the systematic collection of a wide range of data and while not privileging one form over another it is acknowledged that rich qualitative data can provide a deeper understanding of the impact of TPPs than might be possible from quantitative measures alone. Bamber’s (2008) review of the literature related to the evaluation of TPPs supports this position and raises the question of whether the notion of measurement is even appropriate. She argues that academic developers should gather and interpret a broad spectrum of data within their local context – a long-term, complex process avoiding simplistic attempts to link professional development and student learning directly (p. 108). The complexity brings with it uncertainty about the effectiveness of TPPs and it may be that causal proof should not be an expectation within the accountability agenda. The literature also supports contextualised evaluation, highlighting that while large scale multi institutional evaluations might provide information on general trends and issues related to academic development, they are not always relevant to individual institutions (Knight, 2006; Prosser, Rickinson, Bence, Hanbury & Kulej, 2006; Bamber, 2008,).

There is also evidence in the literature that changes in teacher beliefs and behaviour and student learning approaches occur over time, suggesting that evaluation should be longitudinal (Ho et al., 2001; Rust, 2000; Meiers & Ingvarson, 2003; Knight, 2006; Hanbury et al., 2008; Cilliers & Herman, 2010). Academic developers need to identify the kinds of information that would constitute evidence of change – track changes which might be small, yet significant. Decisions about what kinds of evidence to collect might be informed by the particular model of change which underpins the TPP. For example, some studies have been predicated on the belief that changes in teacher’s conceptions of teaching are necessary before changes in teacher behaviour towards more student oriented approaches can be expected (Ho et al., 2000). This demands an evaluation methodology which reveals participants’ conceptions of teaching, their teaching practices and their students’ approaches to study over time (Bamber, 2008). In a reflective practice model of change relevant data might be generated from structured reflection including journal writing and interviews with small groups or document analysis to provide evidence of the achievement of the desired outcomes of TPPs. Where the scholarship of teaching and learning underpins change, academic developers may seek data derived from teaching portfolios, promotion applications, grant applications and publications. Given the substantial support for viewing institutional architecture and climate as a fundamental agent of change, academic developers may interrogate the level of decentralised support through interviews with heads of faculty/department, tracking of collaborative initiatives and questionnaires related to participant perceptions of support.

The large body of literature around the issues of evaluation of TPPs while at times contradictory does nevertheless provide a starting point for the conceptualisation and development of an evaluation framework which addresses the challenges of relevance, adaptability, rigour and inclusivity.
References


Appendix A


Appendix A


Rowe, K. (2004). *Analysing & reporting performance indicator data: 'Caress' the data and user beware!* Background paper for The Public Sector Performance & Reporting Conference, under the auspices of the International Institute for Research (IIR), Canberra: ACER.


Appendix A


Viskovic, A. (2009). Survey of literature relating to tertiary teacher development and
Appendix A


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### Excerpt from UWA TPP Audit (page 1 of 4)

<table>
<thead>
<tr>
<th><strong>Type of Preparation</strong></th>
<th><strong>UWA Features</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Features</strong></td>
<td>Grad Cert in Tertiary Teaching</td>
</tr>
<tr>
<td>1. Location</td>
<td>a. Central Teaching Unit</td>
</tr>
<tr>
<td></td>
<td>b. Faculty/Department/School-based</td>
</tr>
<tr>
<td>2. Number/ Frequency</td>
<td>Number offered per semester 1 intake per year</td>
</tr>
<tr>
<td>3. Duration</td>
<td>a. Short e.g. 1-3 hour w/shops</td>
</tr>
<tr>
<td></td>
<td>c. Extended: 1 yr</td>
</tr>
<tr>
<td></td>
<td>b. Optional</td>
</tr>
<tr>
<td>5. Participants</td>
<td>a. New staff</td>
</tr>
<tr>
<td></td>
<td>d. Number attending</td>
</tr>
<tr>
<td></td>
<td>a. 90%</td>
</tr>
<tr>
<td>7. Intended outcomes / Impact</td>
<td>Teacher Focused</td>
</tr>
<tr>
<td>a. Develop pedagogical knowledge</td>
<td>a. Pedagogy on tertiary teaching</td>
</tr>
<tr>
<td>c. Develop teaching approaches/skills /strategies</td>
<td>c. Digital technologies; assessment, measurement and learning</td>
</tr>
<tr>
<td>d. Change teacher behaviour</td>
<td></td>
</tr>
<tr>
<td>e. Improve student learning</td>
<td></td>
</tr>
<tr>
<td>f. Engage students in learning</td>
<td></td>
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<tr>
<td>g. Enhance student experience</td>
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</tr>
<tr>
<td>8 Generic/ discipline specific</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Recognition</td>
</tr>
<tr>
<td></td>
<td>c. Promotion criteria aligned</td>
</tr>
<tr>
<td></td>
<td>d. Support at Faculty/School level.</td>
</tr>
<tr>
<td>Focus</td>
<td>Input Indicators</td>
</tr>
<tr>
<td>-------</td>
<td>------------------</td>
</tr>
<tr>
<td>Teacher knowledge, skills and practice</td>
<td>1. TPPs delivered by staff with appropriate qualifications and experience</td>
</tr>
<tr>
<td></td>
<td>2. The range and mode of TPPs is aligned with University guidelines on good teaching and staff needs</td>
</tr>
<tr>
<td>Teacher reflective practice and scholarship of teaching and learning</td>
<td>10. TPPs align with institutional commitment to self-reflective practice and research informed teaching practices</td>
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<tr>
<td></td>
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<tr>
<td>Student engagement, learning experience</td>
<td>14. TPPs align with espoused priorities related to student learning experiences and engagement</td>
</tr>
<tr>
<td></td>
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<tr>
<td>Student approaches to learning</td>
<td>18. TPPs incorporate University graduate attributes</td>
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<tr>
<td></td>
<td></td>
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<tr>
<td>Institution Level</td>
<td></td>
</tr>
<tr>
<td>Focus</td>
<td>Input Indicators</td>
</tr>
<tr>
<td>-------</td>
<td>------------------</td>
</tr>
<tr>
<td>Policy</td>
<td>1. University policies and priorities recognise the role of TPPs in enhancing the quality of teaching and learning e.g. a. requiring, and providing financial support for, the completion of a formal TPP for new academic appointments b. recognising and rewarding teaching (through career progression, grants etc.) c. faculty/dept recognition of staff participation in TPPs in workload formulas</td>
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<tr>
<td>Resourcing</td>
<td>11. University allocates adequate resources to TPP provision (funding, staff and facilities), e.g. a. an adequate number and range of TPPs are planned b. appropriately qualified and experienced staff appointed</td>
</tr>
<tr>
<td>Culture</td>
<td>12. TPPs delivered within a culture of supporting learning communities</td>
</tr>
</tbody>
</table>
### Academic Professional Development Effectiveness Framework

#### Informal /Short/Ad Hoc Programs

<table>
<thead>
<tr>
<th>Program Level</th>
<th>Focus</th>
<th>Input Indicators</th>
<th>Process Indicators</th>
<th>Output Indicators</th>
<th>Outcome Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher knowledge, skills and practice</strong></td>
<td>1. TPPs responsive to audit of staff needs and institutional priorities (e.g. LMS)</td>
<td>4. TPPs are varied and designed to meet staff and institutional needs</td>
<td>6. Number of workshops offered</td>
<td>8. Workshop evaluations</td>
<td></td>
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<tr>
<td></td>
<td>2. Number and range of TPPs focused on knowledge, skills and strategies</td>
<td>5. TPPs highlight and model a range of evidence-based teaching and learning strategies, resources and assessment techniques which can be adapted to discipline specific contexts</td>
<td>7. Number and proportion of staff attending workshops</td>
<td>9. Staff perception of their teaching skills following participation in TPPs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Ongoing teaching development is an expectation of all staff</td>
<td></td>
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<tr>
<td><strong>Teacher orientation/awareness of institutional policies, practices and support</strong></td>
<td>10. Number and range of TPPs related to orientation/dissemination of university policies, processes and priorities related to teaching and learning</td>
<td>11. TPPs clarify institutional expectations/requirements regarding teaching and learning (e.g. assessment, academic conduct, grading, international students, supervision)</td>
<td>12. Number and proportion of staff attending TPPs</td>
<td>14. Workshop evaluations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13. Range and scope of TPPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Student engagement and learning experience</strong></td>
<td>15. Number of TPPs with a focus on student engagement and learning experience</td>
<td>16. Reviews of student experience inform TPPs</td>
<td>17. Number and proportion of staff attending TPPs</td>
<td>18. Unit evaluations</td>
<td></td>
</tr>
</tbody>
</table>

#### Institution Level

| **Policy** | 1. University policies and priorities recognise the role of TPPs in enhancing the quality of teaching and learning e.g. | 2. Range and mode of TPPs offered | 3. Workshop evaluations |
| | a) adoption of an appropriate model of TPP provision (central, distributed, faculty-based) | | 4. Period external review of offerings and benchmarking report to University Teaching and Learning Committee |
| | b) faculty/dept recognises staff participation in informal TPPs in workload formulas | | |
| | c) recognition and reward of quality teaching | | |
| **Resourcing** | 5. University allocates adequate resources to TPP provision e.g. | 6. Number, timing, range and mode of programs offered | 7. Annual Report of TPP activities |
| | a) an adequate number and range of TPPs are planned | | |
| | b) appropriately qualified and experienced staff are appointed | | |
| | c) financial and in-kind support is available for various staff needs, e.g. sessional staff, post grad and clinical tutors | | |
An introduction to the Academic Professional Development Effectiveness Frameworks

These notes were prepared initially to support the teams participating in the trial of the draft APD Effectiveness Framework and have now been modified to serve as an introduction to the use of the Framework.

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Understanding the Academic Professional Development (APD) Effectiveness Framework

The following notes provide a brief overview of the project, the development and structure of the APD Effectiveness Framework and how it can be used. Each section concludes with a brief summary.

A. Introduction: Why develop an evaluation framework?

Professional development programs and activities to enhance teaching and learning have been a feature of the academic culture of many higher education institutions throughout the world for more than 50 years. A number of scoping studies (Gosling, 2008; Ling, 2009; Ako Aotearoa, 2010; Southwell & Morgan, 2010; Stefani, 2011) capture the breadth and depth of provision, both nationally and internationally, revealing diverse organisational structures and program delivery. There is also a growing body of research into various types of programs (Prebble, 2004; Gibbs & Coffey, 2004; Knight, 2006; Hanbury, Prosser, & Rickinson, 2008; Southwell & Morgan, 2010) documenting the varied and substantial teacher preparation offerings of academic development units. What is less apparent in the literature is evidence of whether these activities have had an impact on enhancing teaching, student satisfaction and learning experiences, or the institutional architecture and culture which supports, rewards and recognises teaching.

In Australia, the Development of Academics and Higher Education Futures Report (Ling, 2009) revealed consistency in that nearly all Australian universities have a central academic development unit, but a significantly varied landscape of mission statements, organisational structure, provision, institutional support, and resourcing. The Report also identified issues and made recommendations, one of which was that academic developers need to engage in forms of evaluation which will indicate the impact of their activities in the long term (p. 62). This was in line with Devlin’s (2008) view that the questions of whether or not various teacher development interventions actually work and, if so, in what ways such interventions influence skills, practices and foci, and/or ultimately lead to improved learning, remain largely unanswered in higher education (p.15).

Addressing such questions is a timely challenge given the increasing attention directed to academic development programs in higher education over recent years. Indeed throughout the last two decades a government agenda of quality, value for money and enhanced participation has resulted in persistent attention to the quality of higher education in Australia leading to a number of inquiries with subsequent reports and recommendations (Ramsden, 2003, p. 233; Bradley et al., 2008; Coates, 2008). With greater attention being paid to the quality of teaching in universities more broadly, and in individual performance reviews and promotion more specifically, there are clear expectations that teaching staff will provide evidence of the quality of their teaching and of ongoing participation in teacher development programs. This, in turn, leads to questions of accountability and calls for academic developers to engage in systematic evaluation of their programs to demonstrate that their activities are not just in line with institutional strategic initiatives, but that they have improved student learning experiences (Brew, 2007, p. 69). We also need the evidence of what ‘works’ so that the limited resources available are directed to the most appropriate teaching preparation activities for each particular context. While on the surface this seems a relatively straightforward matter there is, in fact, considerable debate about how to determine the impact of academic development programs, what aspects to measure, which outcomes can be measured, how to measure them and whether attempts to assess effectiveness can be conclusive. Furthermore, any consideration of the impact of academic development programs can only be meaningful when contextualised against the size and type of institution, the resources available and the intended outcomes, adding to the complexity of the task.

The APD Effectiveness Framework is intended as a tool to assist academic developers to evaluate the effectiveness of their teaching preparation programs, to understand the factors influencing the effectiveness of such programs on teacher beliefs and behaviours, student approaches to learning and

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1 For more detail see the full Literature Review available at http://www.catl.uwa.edu.au/projects/tpp/effectiveness
institutional culture, and to enhance sector-wide understanding of the different purposes and impacts of different types of teaching preparation programs for academics (TPPs).  

**In brief:** While the literature paints a picture of widespread and diverse TPP related activities in higher education in Australia and overseas, a great deal of uncertainty surrounds the question of whether these activities are having an impact. In Australia this uncertainty has been fuelled by the Bradley Report on Higher Education which revealed a worrying decline in student satisfaction with some aspects of their learning experiences (Bradley et al., 2008). This has generated a degree of reservation about the effectiveness of TPPs on teachers, students and the wider institutional community and culture at a time when teaching and learning in higher education are under scrutiny amid calls for accountability (Stefani, 2011). In an era of accountability TPPs are not immune from this scrutiny.

### B. Development of the Framework: What principles underpin the APD Effectiveness Indicator Framework?

Considerable scholarship and effort goes into planning and delivering TPPs which are supported by the universities and faculties through centrally managed units and/or faculty and school based programs. The range and types of TPPs and activities vary considerably from formally accredited programs such as Graduate Certificates in Tertiary Teaching, to Foundations of University Learning and Teaching programs for academics new to teaching, to less formal programs with incidental workshops run through a central unit or instigated within faculties or departments. These might also include formal or informal peer review of teaching, and processes and practices that encourage self-reflection and teacher discussions through networks and communities of practice. Furthermore these programs, in their varied forms, are provided on-shore, off-shore and on-line. The challenge in developing a framework was in not privileging one particular type of TPP, and taking account of the variations in duration, mode and purpose of the various types of programs. To meet this challenge it soon became obvious that it was necessary to develop two complementary parts to the framework. The Framework encompasses a broad definition of TPPs to allow the investigation of the effectiveness of the range of programs in varied contexts and is underpinned by the following principles:

1. The Framework should be relevant the intentions of the formal and informal teaching preparation programs offered by academic developers in Australian universities.
2. The Framework should be informed by the literature and studies relating to measuring the effectiveness of TPPs.
3. The Framework should be adaptable to the variety of programs and contexts.
4. The Framework should be based on a clear understanding of the term effectiveness.

#### Principle 1: The Framework must relevant to current practices

Prior to the development of the Framework an extensive audit of TPP for Australian academics was conducted initially using each university’s website. Subsequently each audit was sent to institutions for checking, verification or amendment and return. The audits were then used to determine the types of programs offered (e.g. formal or informal), the features of the programs (e.g. duration, status, participants, mode, frequency etc.), the intended outcomes, and the degree of alignment with institutional architecture (e.g. policy, resourcing etc.) and culture (e.g. recognition and reward of quality teaching etc.). The findings of the audit informed the design of the Framework.

#### Principle 2: The Framework must be informed by research

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2 Throughout this report ‘TPP’ is used to refer to teaching preparation programs for academics. However the title of the Framework uses the more commonly accepted term Academic Professional Development to avoid confusion with programs which prepare teachers for the school sector.
Prior to the development of the draft Framework an extensive review of the literature was undertaken. The focus was on summarising the findings of the studies that have investigated the effectiveness and impact of the range of teaching preparation programs for academics. The findings were then used as basis for identifying the aspects of TPPs which could reasonably be expected to be evaluated. In general the main findings which are reflected in the design of the Framework are:

- The difference in effectiveness of long versus short programs.
- The difference in effectiveness between discipline based and generic programs and between in-situ, peer learning etc. and large group programs.
- The lack of evidence supporting a direct relationship between TPPs and student learning outcomes (although there is strong research-based evidence that good teaching has positive effects on student approaches to learning and that teaching preparation programs can have positive effects on the quality of teaching).
- The evidence which indicates that it is possible to identify changes in conceptions of teaching; teacher knowledge, skills and understanding; curriculum design (in particular the alignment of assessment with course outcomes); the use of varied and student focused learning strategies; engagement with reflective practice and the scholarship of teaching; student engagement, learning experiences and approaches to learning, and institutional architecture and culture.
- The evidence that both qualitative and quantitative measures are necessary to understand how and why programs are effective.

**Principle 3: The Framework must be adaptable to the variety of programs and contexts**

While most universities have dedicated academic development units, there is diversity in terms of the position of units within the university hierarchy, their size, structure, resourcing and responsibilities, and the number and range of TPPs which are offered. This had implications for the design of a Framework and the degree to which one matrix could be adaptable to all contexts and activities. The resulting Framework has therefore been designed to incorporate a collection of possible indicators from which academic developers can choose those relevant to their programs and context. Three areas of Outcomes Focus have been used to enable the Framework to be adaptable to the variety of programs offered. These, informed by the two previous principles, are:

- Teacher: Knowledge, skill, behaviour, reflective practice and scholarship of teaching
- Student: Engagement and enhancement of learning and approaches to learning
- Institution: Architecture and culture

**Principle 4: The Framework must be based on a clear understanding of effectiveness.**

The Framework is intended to be an evaluation tool for those involved in academic development to judge the effectiveness of their programs and for institutional review of the effectiveness of their academic development initiatives. They are also compatible with other strategies of evaluation such as benchmarking, internal review and monitoring as part of an ongoing cycle of quality enhancement. As a form of such evaluation, the Framework includes indicators of change over both the short and long term and it is this emphasis on change which underpins the use of the term effectiveness. Much of the literature related to evaluating academic development programs uses the terms ‘effectiveness’, ‘impact’, ‘influence’ and ‘strengths’ interchangeably without attempting to define any of them. The American Evaluation Association (2011) defines evaluation as assessing the strengths and weaknesses of programs, policies, personnel, products, and organisations to improve their effectiveness. This definition mirrors the intent of
the APD Effectiveness Framework which is based on the notion that an effective intervention, in this case TPPs, will result in change which is appropriate to the situation (Moon, 2004), and in particular, in knowledge and practice appropriate to the teaching-learning context. In evaluating the success of TPPs, two aspects require attention: the effectiveness of the practices and processes involved, and the changes which occur as a result of these practices and processes. Consequently the Framework includes indicators of change which require looking at evidence beyond the immediate results of participant satisfaction and quality of program delivery, to the intermediate and longer term effects of programs on teacher and student behaviours, to the institutional teaching and learning policies and culture and to data which demonstrates sustained and sustainable improvement.

In brief: The development of the Framework has been informed by the audit of TPPs in Australian universities and the literature in the field, and is underpinned by the need to provide an adaptable, relevant evaluation Framework incorporating evidence-based indicators. Together the two parts of the Framework are intended to be a collection of possible indicators to assist academic developers in evidencing the effectiveness of their work. The term effectiveness is used to reflect processes and product, and short and long term change.

C. Structure of the Framework: How is it organised?

The structure of the Framework is designed to assist academic developers to document the effectiveness of their TPPs drawing on data they have related to the indicators. A separate framework is presented for formal and informal TPPs. Each Framework includes indicators of effectiveness for Programs and the Institution, four types of indicators, areas of evidence focus for programs and institutions, and specific effectiveness indicators related to each area of evidence focus. The structure is as follows:

Categories of TPPs
- **Formal**: These include TPPs for which there is formal accreditation, or which are mandated or required by the university, (for example Grad. Certs or similar, foundations of university learning and teaching programs, compulsory orientation for new or sessional staff), and which are delivered over extended time periods (for example several days, a semester or full year).
- **Informal**: These include all optional workshops, seminars, on-line tutorials, teaching and learning events, peer learning, ad hoc sessions, faculty-based programs, etc. which typically have a single focus and are short in duration (for example one to three hours).
Levels of focus

As a consequence of the focus on both teaching preparation programs and the context in which these activities take place it was necessary to present the Framework in two levels:

- **Program**: This level focuses on the intended outcomes of TPPs.
- **Institution**: This level focuses on the alignment between institutional architecture (e.g. policy, resourcing, review procedures) and enhancement culture (e.g. support for the transfer of learning), and TPPs.

The inclusion of the institutional level outcomes emanates from the work of Trowler and Bamber (2005) which highlights the importance of the context and the alignment between institutional architecture culture and TPPs. In recognising the importance of the context within which TPPs are delivered, the project team determined that it was essential to co-locate the indicators for each level within one framework, rather than separating them which could divert attention to the program level only.

Types of Indicators

There is considerable agreement that Input, Process, Output and Outcome indicators, which can be more broadly categorised as quantitative and qualitative, are suitable for the purposes of evaluation (Chalmers, 2008; Shavelson, 2010). Quantitative indicators are based on numerical assessments of performance and are typified by Input and Output indicators while qualitative indicators use non numerical assessments of performance and include Process and Outcome indicators. The Frameworks are based on the following understanding of each type of indicator:

- **Input indicators** refer to the human, physical and financial resources dedicated to particular programs;
- **Output indicators** refer to the results or outcomes of the programs which are measurable such as the number of program participants;
- **Process indicators** reveal how programs are delivered within the particular context referring to policies and practices related to learning and teaching, performance management and professional development of staff, quality of curriculum and the assessment of student learning, and quality of facilities, services and technology (Chalmers, 2008, p.12);
- **Outcome indicators** focus on the quality of provision, satisfaction levels and the value added from learning experiences.

All indicators have some limitations. For example, Input and Output indicators tend to generate statistics which reveal how much or how many, but say little about quality and may actually inhibit the investigation of teaching and learning processes, experiences and interactions which could be more enlightening. Outcome and Process indicators provide information about quality, but are more difficult to measure. While there is sufficient evidence that the use of Process indicators is most appropriate and useful for generating information related to quality in teaching and learning (Chalmers, DEEWR Report 2008) there is also recognition of the need for quantitative information. The important point is that information needs to be drawn from a variety of indicators and that the information generated needs to be interpreted and contextualised.

Evidence/Outcomes Focus

The areas of Evidence or Outcomes Focus represent the intended outcomes most commonly identified by the audit of TPP activities for academics in Australian universities and those outcomes of TPPs which the literature suggests can be evaluated. The way in which the intended outcomes are articulated varies from
broad general statements to those which are specific. To manage this difference and the breadth of offerings the outcomes have been categorised into the following common areas:

- **Teacher knowledge, skills and practice**: includes intended outcomes relating to, for example, pedagogy, curriculum design, assessment and feedback, teaching approaches, strategies, and skills, deep and surface learning, large and small group teaching, use of technology, etc.

- **Teacher reflective practice and scholarship of teaching**: includes intended outcomes relating to, for example, use of student feedback, techniques for reflecting on and evaluating teaching, peer review, innovations in teaching, communities of practice, researching teaching, etc.

- **Student engagement, learning experience**: includes intended outcomes relating to, for example, effective group teaching, active learning, questioning and communication techniques, use of ICT and LMS to engage students, dealing with diversity, inclusive teaching, dealing with difficult students, enhancing learning experiences etc.

- **Student approaches to learning**: includes intended outcomes relating to, for example, student focused approaches to teaching and learning, authentic assessment, PBL, work integrated learning, group tasks, critical and creative questioning etc.

- **Policy**: includes the extent to which institutional organisation, policies and strategic priorities recognise, support and value quality teaching and learning and participation in TPPs through, for example, promotion criteria, financial and workload support for participation in TPPs, embedded review processes, recognition and reward for excellence in teaching through promotion criteria etc.

- **Resourcing**: includes the extent to which institutions commit resources to TPPs both centrally and at faculty/department level, to the recognition and reward of quality teaching and to activities which promote quality teaching, etc.

- **Culture**: includes the extent to which institutional culture encourages participation in TPPs, promotes the sharing of teaching and learning ideas and issues, celebrates excellence in teaching, encourages and rewards the scholarship of teaching, supports communities of practice, values teaching and learning related events, etc.

### Specific Effectiveness Indicators

Each of the parts of the Framework includes a collection of specific Effectiveness Indicators at the Program and Institution level. These numbered indicators are presented within areas of Evidence/Outcomes Focus representing the intended outcomes of the TPPs. The numbering does not indicate a hierarchy of indicators nor is there any horizontal relationship between the indicators. The Effectiveness Indicators have been derived following consideration of:

- the intended outcomes of TPPs as revealed by the audit;
- evidence of which outcomes of TPPs can be measured from the extensive literature review;
- the need for a balance between quantitative and qualitative indicators to provide objective credibility and rich information;
- the need for both short term and long term data;
- the need to balance participant surveys with other sources of evidence (triangulation);
- the role of the Framework in providing a basis from which to create a narrative about the effectiveness and impact of TPPs;
- feedback from the academic development community during Stage 1 of the Project;
- ease and flexibility of use.
Appendix E

**In brief:** The structure and content of the APD Effectiveness Framework has been informed by the audit of TPPs in Australian universities, the literature review and feedback from the academic development community. While there are separate parts for Formal and Informal TPPs, they have a common structure. Each includes two levels: Programs and Institution; four types of indicators: Input, Process, Output and Outcome; areas of Evidence/Outcomes Focus: teachers, students, policy, resourcing and culture, which represent the intended outcomes of TPPs; and specific indicators for each area of Outcomes Focus (see diagram above).

**D. Interpreting the Framework: How can it be used?**

It is expected that the APD Effectiveness Framework will serve as an evaluation or accountability tool as well as informing future curriculum design.

**Evaluation Tool**

The APD Effectiveness Framework is intended to assist academic developers in evidencing the effectiveness of their TPPs and the consequential changes in teaching and learning related activities and processes. One way of achieving this might be to develop a narrative\(^3\), using the APD Effectiveness Framework to select indicators around which to frame the discussion and which can be supported by data.

The findings of the literature review suggest that in developing such a narrative academic developers should select both qualitative and quantitative indicators, and short and long term indicators in order to present a comprehensive account of the effectiveness of their TPPs. Throughout the discussion the indicators may be interrelated and linked to data all of which should be interpreted in light of the institutional context and the explicit purpose for which the information is being presented. Although there is evidence in the literature of tension between proponents of ‘hard’ or ‘soft’ indicators, there is growing support for the use of ‘bottom up’ evidence in the form of, for example, real life stories, anecdotes, forums, reflections and case studies which give voice to successful interventions and why they work in particular contexts. This seems particularly relevant for evaluating the effectiveness of TPPs where complex causal relationships and the considerable variation in pace, extent and depth of change which individuals might demonstrate following participation in TPPs, make it difficult to draw linear conclusions. By developing a narrative academic developers are able to integrate both kinds of data in evidencing the effectiveness of their TPPs.

The Institutional level indicators will assist in determining the alignment between institutional priorities, TPPs and the teaching and learning culture.

**Curriculum Design**

The APD Effectiveness Framework might also be used to inform the design of TPPs. Sometimes called ‘backward design’, the process of looking at the intended outcomes and indicators of effectiveness at the beginning of the design process allows for stronger alignment not only of the curriculum, instructional strategies and evaluation processes, but also of TPPs with institutional values and priorities regarding teaching and learning. The use of the Framework in the design stage also facilitates the identification of data which will be useful for evaluation, and how and when to collect it, reducing reliance on participant surveys for evidence of effectiveness.

**In brief:** The Framework represents a collection of indicators to support the development of a narrative demonstrating the effectiveness/impact of TPPs. It is not intended that all indicators be addressed, but rather that academic developers select those of particular interest, identify data which will provide evidence of the indicator and systematically collect and analyse the relevant data over time. Determining

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\(^{3}\) Exemplars are available on the project website
the effectiveness or impact of TPPs serves two purposes: it provides evidence for accountability and provides feedback for future planning and delivery.\(^4\)

**E. Collaboration**

It is well recognised that engaging academics at the development stage is fundamental to their acceptance of new initiatives (Knight and Trowler, 2000; Gosling et al, 2006; Bryman, 2007). This was a key conclusion from the earlier ALTC project *Learning Leaders in Times of Change* (Scott, Coates & Anderson 2008) which acknowledged that one’s peer group is an important source of motivation (or demotivation). A key feature of the current project therefore, was the involvement of academic developers throughout the project. The CADAD network, which endorsed the project from the outset, was invited to review and discuss early iterations of the Framework and to nominate for participation in the trial. The academic development community, in general, was invited to participate in a workshop (following the HERDSA 2011 Conference) outlining the purpose and structure of the draft Framework and to nominate for the trial. Nine teams subsequently took part in the trial.

The trial teams represented a diverse range of institutions encompassing Go8s, regional, multi campus and cross sector institutions, with a range of distinctive features including a focus on technology and design, distance education, research, off shore teaching, professional education and industry partnerships. There was also considerable range in size and age of institution: five teams were based in universities with 30 000 students or fewer and the remainder in larger institutions reporting between 40 000 and 74 000 students; and five were based in universities established prior to the 1960s and the remainder in newer institutions.

Trial teams consisted of between two and five members, with a team leader responsible for coordinating the trial activities in their institution and the final presentation and written report. There was a range of experience within trial teams from senior academic developers with more than five years’ experience to those newer to the field.

Each trial team developed an action plan focused on an institution specific issue or interest and although they were provided with an introduction to the APD Effectiveness Framework and its intended application they were encouraged to adapt and modify the Framework to suit their purposes and context. This was a particularly important focus of the trial given the design principles of relevance and adaptability. The trial teams embraced this challenge and demonstrated a variety of applications of the Framework which went beyond the expectations of the project team.

**Conclusion**

Each of the trial teams was able to engage with the support materials which are available on the project website to document the effectiveness of their TPPs in a variety of ways. In their feedback the trial teams identified the following strengths of the Framework:

- **Flexibility:** The Framework is adaptable to varying institutional contexts, programs and sectors and can also be adapted to an institution specific need.

- **Comprehensive** The Framework includes a range of both qualitative and quantitative indicators allows for an understanding of how and why programs are effective or not and can also be used for a detailed investigation of particular outcomes or a broad overview of provision to be evidenced in the long and short term.

- **Educative:** The Framework facilitates decisions on what data to collect, when to collect and how to organise it, and reveals gaps in current evaluation practices.

\(^4\) For a summary of other uses identified by the trial see the Project Report on the OLT website.
Scaffold for planning: The Framework provides a structure for the development of a systematic long and short term approach to evaluation and provides a repository for evidence.

Inclusion of institutional culture: The Framework provides a basis for conversations which will promote an awareness of the need for alignment between policy, resourcing and recognition of quality teaching and learning and for the development of university-wide enhancement cultures.

Curriculum development: The Framework is useful as a standard in the design of teaching preparation programs.

Benchmarking: The Framework is helpful for both internal benchmarking of programs and for integration into the CADAD benchmarking process.
References


Narrative Guidelines: Using the APD Effectiveness Framework

Introduction

The following is intended to support academic developers in demonstrating the effectiveness of their TPPs for academics. One way to achieve this is to develop a narrative which integrates the indicators from the APD Effectiveness Framework and relevant data in creating a comprehensive picture of the effectiveness of the design and delivery of TPPs and the consequential changes in teaching and learning. These guidelines provide the basis for developing the narrative and can be adapted to the particular context or concerns.

In the sections which follow you will find a set of indicative questions to prompt your thinking about the particular outcome you are demonstrating, the relevant indicators and some suggested sources of evidence. Each of the indicators is labelled with a set of letters and numbers in brackets to provide for easy reference back to the APD Effectiveness Framework. (i.e. Formal [F] or Informal [I]; the level of interest, i.e. Program [P] or Institution [I] and the number of the particular effectiveness indicator within the Framework. For example [FP 10] is Formal Framework, Program Level and Indicator 10.)

The following sequence may be helpful in using the APD Effectiveness Framework and these guidelines:

1. Select the Formal or Informal Framework as appropriate to your evaluation.
2. Select the Program or Institution level as your focus.
3. Select the Outcome Focus (i.e. intended outcomes) you are interested in demonstrating.
4. Consider the indicators of achievement of this outcome.
5. Look at the indicative questions in the template for addressing the outcomes.
6. Identify, collect and analyse the relevant data/evidence.
7. Begin the narrative with an introductory section outlining the Context.
8. Using the indicative questions and suggested evidence develop the narrative around the particular Outcome Focus, indicator’s and evidence.
9. Consider using both qualitative and quantitative indicators if appropriate.
10. Remember there is no hierarchy of the indicators, no horizontal links and no expectation that all indicators will be addressed for each area of focus.
Introduction

Your narrative might start with an elaboration of context in which the professional development programs take place. The following section provides some suggested headings to guide this contextualisation. This can be written in narrative style, bullet point or tabular – whatever best suits your preferences. As this section develops it is possible to cross reference your comments with the indicators in the APD Effectiveness Framework. Those most relevant to this section have been identified in the column on the right, but there may be others which are also relevant to your circumstances.

<table>
<thead>
<tr>
<th>Indicative Headings and Detail</th>
<th>Indicator/s</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Context:</strong></td>
<td></td>
</tr>
<tr>
<td>- Name of institution</td>
<td>✓ University allocates adequate resources to TPP provision [FI 11]</td>
</tr>
<tr>
<td>- Location, age, nature, size of the university</td>
<td></td>
</tr>
<tr>
<td>- Number of staff</td>
<td></td>
</tr>
<tr>
<td>- Position of Academic Development unit (ADU) within university administrative structure</td>
<td></td>
</tr>
<tr>
<td>- Status of Teaching and Learning within the institution</td>
<td></td>
</tr>
<tr>
<td><strong>Profile of the ADU:</strong></td>
<td>✓ TPPs delivered by staff with appropriate qualifications and experience [FP 1]</td>
</tr>
<tr>
<td>- When established</td>
<td></td>
</tr>
<tr>
<td>- Administrative structure of ADU</td>
<td></td>
</tr>
<tr>
<td>- Mission/Vision/ Priorities of ADU</td>
<td></td>
</tr>
<tr>
<td>- Number of staff</td>
<td></td>
</tr>
<tr>
<td>- Qualifications of staff</td>
<td></td>
</tr>
<tr>
<td>- Facilities</td>
<td></td>
</tr>
<tr>
<td>- Budget</td>
<td></td>
</tr>
<tr>
<td>- Responsibilities</td>
<td></td>
</tr>
<tr>
<td><strong>Strategic Plan for short and long term</strong></td>
<td>✓ Annual Report of TPP activities [FI 8]</td>
</tr>
<tr>
<td>- Current priorities</td>
<td></td>
</tr>
<tr>
<td>- Future needs</td>
<td></td>
</tr>
<tr>
<td>- Issues/ challenges</td>
<td></td>
</tr>
<tr>
<td>- Focus on demonstrating effectiveness</td>
<td></td>
</tr>
<tr>
<td><strong>Conclusion</strong></td>
<td></td>
</tr>
</tbody>
</table>
### Overview of Programs

This section provides an opportunity to develop an overview of the TPPs for academics delivered or coordinated by the academic development unit.

<table>
<thead>
<tr>
<th>Indicative questions</th>
<th>Indicators</th>
<th>Evidence (Guidelines only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What formal and informal programs are offered?</td>
<td>✓ TPPs for academics delivered by staff with appropriate qualifications and experience [FP 1]</td>
<td>Staff qualifications/experience</td>
</tr>
<tr>
<td>How frequently are they offered?</td>
<td>✓ The range and mode of TPPs is aligned with University guidelines on good teaching and staff needs [FP 2]</td>
<td>Schedule of programs</td>
</tr>
<tr>
<td>What is the duration of the programs?</td>
<td>✓ TPPs draw on a framework of evidence based teaching and learning practices (e.g. HEA professional standards framework) [FP 15]</td>
<td>University policies</td>
</tr>
<tr>
<td>Which programs are mandated/optional?</td>
<td>✓ TPPs incorporate research which informs teaching and learning in higher education [FP 12]</td>
<td>Mapping of program foci against university policies, graduate attributes, student feedback</td>
</tr>
<tr>
<td>What particular needs are met by the programs offered? (e.g. sessional staff, lab demonstrators, tutors etc.)</td>
<td>✓ Student perceptions of teaching are incorporated into TPPs [FP 16]</td>
<td>Basis of curriculum design model</td>
</tr>
<tr>
<td>What modes of delivery are used?</td>
<td>✓ TPPs incorporate University graduate attributes [FP 18]</td>
<td>Responsiveness of program design to staff feedback and requests</td>
</tr>
<tr>
<td>Who delivers the programs?</td>
<td>✓ TPPs responsive to audit of staff needs and institutional priorities (e.g. LMS) [IP 1]</td>
<td></td>
</tr>
<tr>
<td>Are the programs generic or discipline specific?</td>
<td>✓ TPPs are varied and designed to meet staff and institutional needs [IP 4]</td>
<td></td>
</tr>
<tr>
<td>Are there any programs delivered in collaboration with faculties/departments?</td>
<td>✓ Number of workshops offered [IP 6]</td>
<td></td>
</tr>
<tr>
<td>Who is responsible for program design?</td>
<td>✓ Reviews of student experience inform TPPs [IP 16]</td>
<td></td>
</tr>
<tr>
<td>How are decisions about program design made?</td>
<td>✓ Number, timing, range and mode of programs offered [II 6]</td>
<td></td>
</tr>
<tr>
<td>What short term/long term, formal/informal evaluation procedures are in place?</td>
<td>✓ Range and scope of TPPs [IP 13]</td>
<td></td>
</tr>
<tr>
<td>How do the evaluation procedures align with program intentions?</td>
<td>✓ University allocates adequate resources to TPP provision e.g. an adequate number and range of TPPs are planned, appropriately qualified and experienced staff are appointed, financial and in-kind support is available for various staff needs, e.g. sessional staff, post grad and clinical tutors [II 5]</td>
<td></td>
</tr>
<tr>
<td>What follow up is there of individual participants to determine whether program intentions have been achieved?</td>
<td>✓ TPP/workshop evaluations [FP 6] [IP 8] [IP 14] [II 3]</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion**
### Overview of Participation

This section focuses on evidencing the effectiveness of TPPs for academics through an evaluation of participation rates and draws on the Institutional level indicators. The particular focus should be clarified in an introduction to this.

<table>
<thead>
<tr>
<th>Indicative questions</th>
<th>Indicators</th>
<th>Evidence (Guidelines only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• How many staff have completed Grad Certs?</td>
<td>✓ Number of completions of a Graduate Certificate by staff [FP 5]</td>
<td>▶ Completions of Grad Certs or similar over time.</td>
</tr>
<tr>
<td>• How many participants attend formal programs?</td>
<td>✓ Number and proportion of staff completing TPPs (Attrition rates from programs, non-completions [FI 3])</td>
<td>▶ Number and proportion of staff who compete FULT programs.</td>
</tr>
<tr>
<td>• How many participants attended each informal program?</td>
<td>✓ Number and proportion of new appointments enrolled in TPPs [FI 4]</td>
<td>▶ Attendance at each program/workshop</td>
</tr>
<tr>
<td>• How many participants attend more than one program?</td>
<td>✓ University policies and priorities recognise the role of TPPs in enhancing the quality of teaching and learning e.g. a) requiring, and providing financial support for, the completion of a formal TPP for new academic appointments, c) faculty/dept recognition of staff participation in TPPs in workload formulas [FI 1]</td>
<td>▶ Patterns of attendance over time</td>
</tr>
<tr>
<td>• How have participation rates changed over time?</td>
<td>✓ Ongoing teaching development is an expectation of all staff [IP 3]</td>
<td>▶ Feedback from participants regarding why they have chosen to attend.</td>
</tr>
<tr>
<td>• Which programs are in greatest demand and why?</td>
<td>✓ Number and proportion of staff attending workshops [IP 7]</td>
<td>▶ Links between university strategic priorities and attendance</td>
</tr>
<tr>
<td>• How many requests are made by faculties/schools for discipline specific workshops?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• How are ad hoc requests for TPPs managed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• How is participation recognised?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion**

- Completions of Grad Certs or similar over time.
- Number and proportion of staff who compete FULT programs.
- Attendance at each program/workshop
- Patterns of attendance over time
- Feedback from participants regarding why they have chosen to attend.
- Links between university strategic priorities and attendance
### Achievement of Intended Outcomes

This section provides guidelines for demonstrating effectiveness through achievement of intended outcomes of individual programs. It can be adapted to either formal or informal programs and the questions, indicators and evidence can be varied according to whether the focus is on a program as whole or on particular outcomes only. The particular purpose of the evaluation should be clarified in an introductory section.

<table>
<thead>
<tr>
<th>Indicative questions</th>
<th>Indicators</th>
<th>Evidence (Guidelines only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• What are the pedagogical/theoretical/research-based foundations of the programs?</td>
<td>✓ TPPs provide a pedagogical framework for understanding teaching and learning in higher education. [FP 3]</td>
<td>▶ Program descriptors</td>
</tr>
<tr>
<td>• What are the intended outcomes of the various programs offered?</td>
<td>✓ Delivery of TPPs models teaching and learning strategies, resources and assessment practices which enhance the quality of teaching and learning. [FP 4]</td>
<td>▶ Mapping of program intended outcomes, content and delivery strategies against university policy, student feedback, professional standards frameworks (e.g. HEA), graduate attributes</td>
</tr>
<tr>
<td>• How are decisions made about the intended outcomes of each program?</td>
<td>✓ TPPs encourage critical reflection of participants’ beliefs and practices regarding teaching, learning and assessment. [FP 11]</td>
<td>▶ Participant’s unit outlines, teaching materials etc. (compared with previous outlines)</td>
</tr>
<tr>
<td>• How are the intended outcomes reflected in the design and delivery of TPPs?</td>
<td>✓ Teacher perceptions of changes in their approach to teaching and learning following completion of TPPs as evidenced by portfolio, improved student evaluations, teaching awards, peer review, self-reflection [FP 7]</td>
<td>▶ Excerpts from participant journals</td>
</tr>
<tr>
<td>• What do you expect participants will know and be able to do following the program?</td>
<td>✓ Evidence of student focused approach in course/teaching materials [FP 9]</td>
<td>▶ Interview/survey/observation of participants</td>
</tr>
<tr>
<td>• How have staff responded to programs which focus on pedagogy, teaching skills, reflective practice, the student learning experience, orientation to university policies, etc.?</td>
<td>✓ Student perceptions of teaching are incorporated into TPPs [FP 16]</td>
<td>▶ Excerpts from promotion applications, teaching portfolios, PDR submissions</td>
</tr>
<tr>
<td>• What evidence is there that participants are achieving the intended outcomes?</td>
<td>✓ TPPs incorporate research which informs teaching and learning in higher education [FP 12]</td>
<td>▶ Comparison of assessment tasks pre and post participation in a TPP</td>
</tr>
<tr>
<td>• In what ways have participants changed their teaching practices following participation in TPPs?</td>
<td>✓ TPPs draw on a framework of evidence based teaching and learning practices (e.g. HEA professional standards framework) [FP 15]</td>
<td>▶ Annotated exemplars of student assessment submissions</td>
</tr>
<tr>
<td>• To what extent do participants engage with reflective practices?</td>
<td>✓ Quality of teaching as evidenced through promotion applications, PDRs etc., following completion of TPPs</td>
<td>▶ Formal and informal student feedback</td>
</tr>
<tr>
<td>• To what extent have TPPs enhanced the student learning experience?</td>
<td></td>
<td>▶ Analysis of unit evaluations over time</td>
</tr>
<tr>
<td>• To what extent have TPPs contributed to changes in student approaches to learning?</td>
<td></td>
<td>▶ Changes in teaching philosophy as evident in teaching portfolios</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ Analysis of workshop evaluations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▶ Reports from follow up sessions in which participants have participated in TPPs</td>
</tr>
</tbody>
</table>
- To what extent are participants aware of institutional priorities, policies etc. as a result of TPPS?

| [FP 8] | ✓ Unit evaluations [FP 17]  
✓ TPP participant perceptions of quality of student assessment tasks [FP 20]  
✓ TPPs clarify institutional expectations/requirements regarding teaching and learning (e.g. assessment, academic conduct, grading, international students, supervision) [IP 11]  
✓ TPPs highlight importance of relevant, authentic assessment tasks [FP 19]  
✓ TPPs incorporate University graduate attributes [FP 18]  
✓ TPP participants report the use of student feedback when reviewing courses and teaching [FP 13]  
✓ Unit evaluations [FP 17] [IP 18]  
✓ Number and proportion of staff attending programs related to student learning experiences [IP 17]  
✓ Number and proportion of staff attending programs related to orientation [IP 12]  
✓ Number and range of TPPs related to orientation/dissemination of university policies, processes and priorities related to teaching and learning [IP 10]  
✓ Number and range of TPPs focused on knowledge, skills and strategies [IP 2]  
✓ TPPs highlight and model a range of evidence-based teaching and learning strategies, resources and assessment techniques which can be adapted to discipline specific contexts [IP 5]  
✓ Number of TPPs with a focus on student engagement and learning experience [IP 15] |

share their use of new strategies, ICTs, LMS, etc.

- Focus group discussions with students
- Analysis of student unit evaluations and changes made to unit outlines, teaching materials, teaching strategies etc.
- Tracking of use of PBL, work integrated learning etc. following participation in TPPs
- Student participation in on-line forums, class discussions etc.

**Conclusion**
Institutional Architecture (Policy and Resourcing) and Culture

This section provides an opportunity to consider the extent of alignment between institutional architecture and culture and the intended outcomes of TPPs for academics. Institutional architecture refers to the degree to which university policies, priorities, resourcing and review processes support and encourage participation in TPPs. Institutional culture refers to the extent to which there is recognition and reward of teaching, support for activities related to the scholarship of teaching and learning and the development of a culture which fosters a focus on teaching and learning and supports the transfer of learning from TPPs.

<table>
<thead>
<tr>
<th>Indicative questions</th>
<th>Indicators</th>
<th>Evidence (Guidelines only)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy, resourcing, alignment</strong></td>
<td>• In what ways and to what extent do institutional policies and strategic priorities encourage, support and recognise participation in TPPs?</td>
<td>✓ University policies and priorities recognise the role of TPPs in enhancing the quality of teaching and learning e.g. encourage and support completion of TPPs, recognise and reward teaching, recognition participation in TPPs in workload formulas. [FI 1]</td>
</tr>
<tr>
<td></td>
<td>• How do decisions regarding resourcing of TPPs influence provision and effectiveness?</td>
<td>✓ University allocated adequate resources to TPP provision (funding, staff and facilities). [FI 11][II 5]</td>
</tr>
<tr>
<td></td>
<td>• How does the design and delivery of TPPs reflect institutional priorities?</td>
<td>✓ Annual Report of TPP activities [FI 8] [II 7]</td>
</tr>
<tr>
<td></td>
<td>• In what ways does the institution recognise and reward teaching?</td>
<td>✓ Number, timing, range and mode of TPPs offered [II 6]</td>
</tr>
<tr>
<td></td>
<td>• To what extent does recognition and reward of teaching influence participation in TPPs?</td>
<td>✓ Range and mode of TPPs offered [II 2]</td>
</tr>
<tr>
<td></td>
<td>• What formal review processes of TPPs are required?</td>
<td>✓ PDR process and promotion criteria recognise completion of TPPS. [FI 2]</td>
</tr>
<tr>
<td></td>
<td>• What additional review processes of TPPs are undertaken?</td>
<td>✓ Number and proportion of new appointments enrolled in TPPs [FI 5]</td>
</tr>
<tr>
<td></td>
<td>• How responsive are TPPs to recommendations from institutional review processes?</td>
<td>✓ Non completion rates [FI 4]</td>
</tr>
<tr>
<td><strong>Culture</strong></td>
<td>✓ Number and proportion of TPP participants nominated for teaching awards. [FI 6]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Periodic external review of program and benchmarking report to T and L committee [FI 10] [II 4]</td>
<td>✓ Workshop evaluations[II 3]</td>
</tr>
<tr>
<td></td>
<td>✓ Policies regarding appointment, promotion, professional development, teaching awards etc.</td>
<td></td>
</tr>
</tbody>
</table>
- How has institutional culture influenced provision or participation in TPPs?
- To what extent do past TPP participants support teaching and learning related events?
- How does faculty/department culture support the transfer of learning from TPPs?
- To what extent do peer learning, communities of practice etc. contribute to a supportive culture for TPP participants?

| ✔ TPPs delivered within a culture of supporting learning communities [FI 12] |
| ✔ Number and proportion of TPP participants attending teaching and learning related events. [FI 13] |
| ✔ Number and proportion of TPP participants who receive teaching grants. [FI 7] |

- Involvement of TPP participants in Teaching and Learning events
- Teaching grants recipients
- Publication related to teaching and learning
- Faculty/department policies related to teaching and learning
- Peer learning activities

### Conclusion

The final task is to conclude the narrative. In doing do you might:

- Note the indicators which have been met,
- Identify progress since any previous review,
- Articulate short and long term goals for the future based on the data collected,
- Identify indicators which still need to be addressed and suggest possible courses of action.
Academic Professional Development Effectiveness Framework
Evaluation Focus: Overview of Provision

Introduction

This evaluation is the first of a number which will focus on the effectiveness of teaching preparation programs for academics (TPPs) offered by the Centre for the Advancement of Teaching and Learning (CATL) at UWA. The APD Effectiveness Framework has been used as a basis for evaluation as it identifies indicators of effectiveness related to various aspects of TPPs and as such enables attention to be directed to areas of particular interest or concern.

This evaluation reviews the design, delivery and diversity of programs offered and the extent to which this provision reflects the indicators of effectiveness of practice, primarily input and process indicators, of the APD Effectiveness Indicator Framework. The analysis of the effectiveness of practice is an important foundation to the next step of evaluating the achievement of the intended outcomes of specific programs.

Where indicators of the APD Effectiveness Framework are met they are included in the right side panel with related evidence. Key phrases related to specific indicators are in bold for easy reference to the APD Effectiveness Framework.

The evaluation should be considered within the contextual information about CATL which is available in the Organisational Structure and OPP.

Overview of Provision

1. Introduction

At UWA the majority of the TPPs are delivered through CATL. CATL consists of three teams working together closely – Administrative, eLearning and Academic. CATL employs a total of 11.8 FTE (12 individuals) ongoing staff, and currently 2.6 FTE fixed-term contract or casual staff in support of over 1300 academic staff at the University. All academic staff delivering formal TPPs have teaching qualifications and more than five years’ experience teaching in the higher education sector. Professional staff who are appointed to professional development roles, have experience in providing training appropriate to the audience.

CATL is committed to sustaining the quality of the staff through rigorous appointment procedures and has recently attracted a strong field of applicants for appointment as education developers for the LMS project. The successful candidates have undergone professional development specific to their role in delivering workshops to support the introduction of Moodle at UWA and their work will be monitored by the Leader of the eLearning team and the LMS Implementation Manager. Consultation through staff surveys and advice from reference groups, which include academic staff, have been instrumental in the design and delivery of the Moodle workshops.

The appointment of appropriately qualified and experienced staff is fundamental to the design and delivery of high quality and effective TPPs and to the status of such courses within the academic community.
2. Development of programs/ events

The focus of CATL is on providing teaching and learning support in areas which are most relevant to the UWA context, priorities, teaching and learning related policies and Educational Principles (graduate attributes). To this end it hosts a range of programs, workshops, visiting speakers and events aimed at enhancing teaching and learning practice at UWA. During the annual review of CATL activities the alignment of programs to institutional priorities is monitored.

In addition to supporting the key areas of teaching practice and scholarship at UWA, the program/workshop calendar is developed on the basis of the strategic and operational plan for the Centre and feedback from participants of TPPs.

In addition to centrally organised programs and events CATL is also actively engaged with faculties. It has initiated faculty based projects aimed at enhancing teaching and learning, such as the CATLyst Network, and participated in teaching and learning projects, such as the current assessment and feedback project which is embedded within the faculties.

3. Formal Programs

Formal programs are semester long or full year programs for specific groups of UWA staff and post graduate students which provide pedagogical knowledge and practical skills in preparation for teaching in a higher education setting. These include:

- Foundations of Teaching and Learning
- Introduction to University Teaching
- Postgraduate Teaching Internship Scheme.

a. Foundations of Teaching and Learning

The Foundations program is offered every semester to support staff relatively new to the University and those with teaching experience who wish to refine, test, validate or develop their present conceptions of good teaching and their current teaching practice. The program is taught either as a semester long programme or in an intensive mode. Completion of the Foundations of Teaching and Learning program is a requirement for new staff and enables advanced standing into the Graduate Certificate in Tertiary Teaching, offered by the Faculty of Education. HR provides a list of new staff to CATL and letters are sent to the individuals and their Heads of School advising them of the upcoming programs.

The program is underpinned by a theoretical framework for teaching and learning in a research intensive university, and provides opportunities for staff to explore a range of teaching and learning strategies. The course outcomes clearly articulate the importance of research informed teaching, and display the core understandings and competencies as represented by the HEA Professional Standards Framework which has been modified and adopted as the UWA Teaching Criteria Framework (TCF). The TCF focuses on teaching practices, core knowledge and professional values all of which are directed to providing a high quality learning experience for students. The pedagogical framework for understanding teaching and learning in higher education which is fundamental to the program is evident in the course outcomes which are designed to enable participants to:

- Articulate an approach to, or philosophy of, teaching and learning;
- Engage in critically reflective practice to enhance teaching;
- Critically analyse incidents and issues in teaching practice and student learning and develop action plans (if appropriate) to resolve them;
- Design and deliver a unit of study that aligns student learning outcomes, teaching and learning strategies and assessment strategies;
- Use a variety of teaching strategies to enable effective student learning;
- Identify diverse student needs and develop appropriate teaching approaches to support these;
- Incorporate elements of eLearning into teaching practice, especially LMS;
- Evaluate teaching using a range of techniques, including SPOT and peer reviews;
- Apply the outcomes of contemporary research into teaching and learning into practice;
- Demonstrate the relationship between teaching, research and scholarship in teaching practices.

[FP 2] [FP 18] [FP 14]

- Links between programs offered and UWA policies and Educational Principles
- See Calendar of events
- See Operational Objective 1a and performance review (Attach. 4, p.2)

[IP 11] See CATLyst and Assessment Project websites

[FP 2] [FP 3] [FI 1 a]

- Links between program aims and institutional priorities
- Staff Development Policy

[FP 2] [FP 3] [FP 4] [FP 12] [FP 14] [FP 15]

- See Program description
- See UWA Teaching Criteria Framework

[FP 3] [FP 11] [FP 12] [FP 17]

- See Course outcomes and activities
A highly valued component of the Foundations program is the panel of students who are invited to share their perceptions of effective teaching and what they value in learning experiences with the participants. Similarly a panel of experienced, award winning teachers who describe their approach to teaching their students draws comments of appreciation from the participants.

b. Introduction to University Teaching (IUT)

This program is specifically designed for postgraduate students who are teaching at UWA in seminars, tutorials or laboratories, some of whom are eligible to be paid casual tutor rates for attending. Offered once each semester the program is presented in three half day workshops followed by five seminars. It provides an introduction to the body of research informing student learning and effective teaching as a foundation upon which to develop new understandings and teaching skills. For those new to teaching it provides a theoretical framework for thinking critically and reflectively about their teaching and offers a host of practical tips and strategies. Effective teaching involves the application of principles and practices modelled in the program, and the role of the teacher in adapting these is emphasised. More specifically participants are provided with an opportunity to:

- Use a variety of teaching strategies to enable effective student learning;
- Gather feedback on their teaching using a range of techniques;
- Reflect upon their approach to, or philosophy of, teaching and learning;
- Engage in critically reflective practice to enhance their teaching;
- Work with a colleague in a learning partnership to provide each other with support and feedback on their teaching and to engage in meaningful dialogue about teaching and learning.

c. Postgraduate Teaching Internship Scheme

The Postgraduate Teaching Internship Scheme allows promising doctoral students to develop teaching skills in their fields and to undertake a program of professional development activities during the course of their PhD candidature. The participants receive payment to attend the program and the school in which they are located receives financial support for their teaching costs.

The program commences with an intensive three-day workshop prior to the beginning of the academic year and is then followed by regular meetings (usually five) throughout each teaching semester providing participants with opportunities to reflect individually and with peers, on their practice and to investigate relevant and current issues, for example, peer review, developing a teaching portfolio, and engage in conversations around race and inclusivity. These are complemented with on-line activities and written assignments all of which model a range of teaching and learning techniques. The workshops include contributions from staff in CATL, faculty-based course coordinators, experienced UWA lecturers and students. The introductory workshops focus on:

- Approaches to teaching, especially teaching to promote student learning.
- Learning environments.
- Teaching methods, activities and practices such as lecturing, small group teaching, cooperative learning, active learning and eLearning.
- Curriculum design and assessment of learning.
- Evaluation of teaching.
- Teaching as critically reflective professional practice.

A variety of activities which have been designed to enable the achievement of these outcomes includes:

- Experiential learning exercises;
- Mini-lectures;
- Panel discussions;
- Cooperative learning, small group and large group work;
- Micro-teaching with videotaping and peer feedback;
- Independent study of materials;

See [Key Activities](#)
On-line tasks.

Successful completion of the program requires a number of tasks to be submitted. These include:

- Feedback on teaching including peer observation of teaching, the use of formal feedback strategies such as Student’s Perceptions of Teaching (SPOT) and informal feedback strategies.
- A reflective statement based on a critical incident which draws upon a learning journal, feedback on teaching and other program activities. A teaching and learning folio.

4. Informal Programs

Complementing the formal programs offered by CATL is a suite of workshops, events and resources which are designed to provide ongoing professional development opportunities for staff which reflect university teaching and learning priorities, new initiatives or current issues and staff needs. CATL’s Strategic and Operational Plan shows a commitment to increasing the variety and number of workshops and resources and to responding to faculty demand for discipline specific support. These programs are typically quite short (between 1 and 3 hours) and are offered more than once a year to accommodate demand and staff preferences for attendance. The programs support one of the following key focus areas:

- Curriculum Development Support for the New Courses
- Developing your Teaching Career
- Evaluation of Teaching
- Orientation and Induction
- Teaching and Research
- Teaching for Learning
- Teaching with Technology

In particular the following workshops, seminars and teaching and learning related events are typical of the range presented each year:
A number of these workshops focus on engaging students and creating positive learning experiences while others provide clarification of institutional policies and processes related to teaching and learning.

Utilising the expertise of new CATL academic development staff, a number of new workshops have been introduced to support staff in interpreting the results of student feedback, peer review, and eLearning, all of which are current priorities within the university. In addition to the workshops, staff are supported through a range of quality online resources designed to enhance teaching and the student learning experience.

In 2010, CATL introduced ‘on request’ workshops for the first time, reducing the number of workshops which had scheduled dates and times, but offering the remainder of the workshops ‘on request’ to groups of interested staff. This change was made to enable CATL to focus on workshop topics with greater levels of demand, whilst still offering support in other areas and being responsive to individual and discipline group needs. Similarly, in the area of eLearning, training workshop offerings were streamlined, with Quickstart workshops for WebCT and Lectopia being scheduled regularly, and more advanced training available on request.

Other informal activities include ad hoc workshops in collaboration with schools and faculties, for example the Schools of Physics, Population Health and Psychology, visiting teachers’ workshops, for example the assessment workshop by Jude Carroll, and more than 30 individual consultations with staff. A number of faculties also participated in the CATLyst network (a collaborative program between CATL and the Faculties) designed to promote teaching and learning in the faculties. Over the last two years the focus of the CATLysts has been on supporting sessional staff which was identified as a university priority. Approximately 80 sessional teaching staff attended an inaugural Sessional Staff Professional Development Day in March 2010 which was repeated in March in 2011. Approximately one third of those attending were new to university teaching, and one third had less than three years’ experience. The program was designed with input from CATL staff, faculty based course coordinators and feedback from sessional staff. On the basis of positive feedback the university has agreed to continue funding this initiative. The faculty based initiative for 2011 was Assessment and Feedback, where a consultant has worked with CATL and Faculty leaders to review assessment practices on a course by course basis. Funding has been provided by the Teaching and Learning Committee to support the initiative.

5. Summary
CATL is satisfied that the design, delivery and diversity of TPPs meet a significant number of the TPP Effectiveness Indicators. The broad suite of programs demonstrates alignment with University priorities related to teaching and learning is responsive to staff needs and acknowledges the importance of the student learning experience. The programs provide a strong foundation in pedagogy, model effective teaching practices, encourage reflection and are underpinned by the Teaching Criteria Framework. Given the size of the academic development team charged with delivering the programs, it is considered that these achievements are satisfactory. CATL acknowledges the support of the Teaching and Learning Committee in providing funding for a number of the initiatives such as Teaching and Learning Month, visiting teachers’ workshops, Sessional Staff PD and the Postgraduate Teaching Internship Scheme.

6. Further progress
While the evidence related to the APD Effectiveness Framework confirms that the programs offered are varied in type, number and focus to meet UWA Teaching and Learning priorities and staff needs, given the introduction of a new LMS and New Courses in 2012, it is expected that there will be additional demands on staff. While a number of
appointments have been made to address this in the short term, it is critical that staffing levels be reviewed in order to provide ongoing support during the transition phase for these new initiatives and in order to meet the priority of working with staff in their disciplinary and faculty context to a greater extent in the future. Within the context of the APD Effectiveness Framework further attention also needs to be directed to the following:

- Although the completion of the Foundation program is noted as being a requirement for new staff to UWA, CATL believes that more specific attention could be given to tracking the completion of the formal TPPs through HR and in consultation with the Heads of School.

- In line with Recommendations 10, 13 and 14 of the 2008 Review of the PDR Process and Q7 of the new PDR guidelines, CATL will also pursue ways of encouraging staff to evidence their learning from participation in TPPs for the purpose of their PDR. Similarly CATL believes that those conducting PDRs should be aware of the extensive range of formal and informal programs available when advising staff to seek further opportunities to enhance their teaching and learning practices.

- It appears that participation in professional development is not a consideration in workload formulas (although not all faculty formulas have been accessed). Given that the criteria for promotion refer to the Teaching Criteria Framework which includes a commitment to ongoing professional development in the Areas of Activity, Core Knowledge and Professional Values it seems that this does require further attention at the faculty/school level. CATL will consider ways of further extending its programs in relation to the Teaching Criteria Framework.
Appendix H

Narrative Exemplar 2

APD Evaluation: Effectiveness of PTIS on Approaches to Teaching

Program Review: Postgraduate Teaching Internship Scheme

1. INTRODUCTION

This review is focused on the Postgraduate Teaching Internship Scheme and seeks to determine the extent to which it achieves the outcomes related to enhancing teacher knowledge, skills and practice. The APD Effectiveness Framework has been used as the basis for the assessment and the relevant indicators and related evidence are identified in the panel on the right. Where appropriate, attachments of relevant data have been included.

Having commenced in 2000, the Postgraduate Teaching Internship Scheme (PTIS) was recognised for its achievements when it received the program award in the national Carrick Institute Awards for Teaching Excellence in 2006. The Scheme reflects the University's goals in supporting high quality teaching and learning and fostering the nexus between teaching and research, as expressed in its Strategic Plan and associated documents.

The program is designed and delivered by highly qualified and experienced staff, as evidenced in the Evaluation of the Overall Provision of TPPs by CATL. Over the eleven years since its inception 228 interns have completed the PTIS. A number of graduates of the program have succeeded in gaining academic positions in Australia and overseas and rate the program as a significant part of their success. While this suggests that the PTIS has the potential to achieve its intended outcomes, the extent to which this is demonstrated has not been fully investigated. Therefore, this analysis focuses on the teacher knowledge, skills and practice outcomes and seeks to determine the extent to which participants of the PTIS develop their understanding of and change their approach to teaching as a result of the program.

2. INTENDED OUTCOMES OF THE PTIS

a. The broad outcomes of the PTIS which relate to teacher knowledge, skills and practice are that participants should be able to:

- Develop an awareness of contemporary research on student learning and its implications for curriculum design, university teaching, assessment of learning and teaching evaluation;
- Refine, modify, or confirm existing conceptualisations of the nature of teaching and learning in higher education;
- Reflect on students’ perspectives of teaching and learning;
- Consider a range of standards for, and informed alternatives to, conventional practice across many aspects of the teaching role;
- Develop teaching strategies with a focus on the learner;
- Explore teaching strategies to engage students and promote deep learning (e.g. large group teaching, small group teaching, cooperative learning, active learning and eLearning);
- Recipient of Carrick Institute Award and Commended by AUQA
- Evaluation of Provision of TPPS (Attached)
- See comments from past Interns

See 2011 Program Outline, pp 1, 4, 5
• Recognise the influence of the learning environment on learning;
• Explore issues of teaching and learning of particular interest to you.

b. Specific Behaviours

More specifically these broad outcomes are translated into action requiring participants to:

• Articulate an approach to, or philosophy of, teaching and learning
• Design and deliver a unit of study that aligns student learning outcomes, teaching and learning strategies and assessment strategies.
• Use a variety of teaching strategies to enable effective student learning.
• Identify diverse student needs and develop appropriate teaching approaches to support these.
• Incorporate elements of eLearning into teaching practice, both using WebCT and other digital learning tools and approaches.
• Develop a teaching and learning folio.
• Apply the outcomes of contemporary research to teaching and learning practice.

3. RELEVANT INDICATORS

This evaluation will seek to evidence the following Outcome Indicators from the APD Effectiveness Framework:

• Teacher perceptions of changes in their approach to teaching and learning following completion of TPPs as evidenced in the teaching portfolio, improved student evaluations, teaching awards, peer review, self-reflection;
• Quality of teaching as evidenced through promotion applications, PDRs etc.;
• Evidence of student focused approach in course/teaching materials.

4. DATA COLLECTION

a. Participants

Participants were identified from those who completed the PTIS in 2008, 2009 or 2010 and included a range in terms of age, gender and teaching experience.

b. Data

In determining the data to be collected consideration was given to the indicator/s to be evidenced (i.e. changes in teacher knowledge, skills and practice), the identification of relevant and readily available data and the need to balance participant and observer perceptions with evidence in documents such as course materials etc.

Data related to the indicators was collected from informal discussions, teaching portfolios compiled during the internship, success in university teaching awards, and an internal review of the program. The comprehensive teaching portfolios prepared by the Interns include a variety of data which is evidence of the way in which their approach to teaching has been influenced by the program. This data includes both formal and informal evaluations, self and observer reports of their teaching practices, analysis of a critical incident related to teaching, and teaching notes and teaching materials which included...
lecture/tutorial preparation, class materials, assessment tasks and marking rubrics, and group or team tasks. Data related to nominations for and recipients of teaching awards has also been useful. Having completed this review it is acknowledged that encouraging ongoing reflections by the interns and a discussion focused on their teaching approaches and materials over the subsequent years would provide evidence of the longer term effects of participation in the PTIS.

5. DATA ANALYSIS

The data analysis which revealed significant changes in conceptions of teaching followed by consequential changes in approaches to teaching is summarized below.

A. Informal discussion
During informal focus group discussions participants identified a number of critical learning experiences during the program which changed their understanding of teaching which in turn influenced their teaching practice. These included the introduction to a theoretical framework within which to develop and analyse their teaching, the demonstration of techniques for engaging students and opportunities to observe each other and appreciate the power of the teacher to inspire and connect students with the subject rather than focusing on delivering content. The comments below have been clustered within common themes emerging from the discussions and offered as examples of the growth experienced by participants.

**Changed understandings of teaching: from transmission to facilitator of learning:**
- I now realise that university classrooms should facilitate an open dialogue between teachers and students assisting each other in their learning.
- My attitude to teaching and my conception of the power of the teacher to influence student motivation and learning was completely changed by the program.
- The program modeled the theories of teaching and learning and so once I experienced a constructivist environment I was able to apply it to my own teaching.
- I don’t think I really knew what curriculum meant before, but having been involved in the design of the unit I think I now understand about the connection between the curriculum and assessment... or that assessment is actually part of the curriculum.
- I am so glad I am now aware of the existence and importance of pedagogical research and how it can help my teaching.
- I learned about constructive alignment of the curriculum to promote deep learning and now am surprised at how many teachers don’t think about this.

**Changes in teaching practice:**
- I thought about the research into adult attention spans and then decided to break up my lectures with video, power point and questions to encourage participation.
- I was inspired to take a risk as a result of the program and rather than present the competing perspectives about ordinary Germans and the Holocaust I divided the students into teams, asked them to interpret documents and then give a reasoned explanation to the class. Opposing teams argued their cases. The students were really excited and talked about it for weeks afterwards.
- Although I was scared I tried some interactive elements in the big lecture and I was surprised at how much I enjoyed it – I think it was because I could see the students enjoying working on the question I had given them.
- I realised that structured learning activities are much better for first years and students struggling with big concepts and I now understand why this is called scaffolding.
The planning templates shared during the program helped me to think about the structure of every lecture and how break it into segments.

The ideas on creating teaching materials to stimulate higher order thinking made a big difference to my teaching.

Understanding the need for active rather than passive students:

- I was worried about how few students actually spoke during tutorials so I decided to give group work a go and assigned questions and tasks to different groups within the tutorial group.
- I designed problems which require students to use the readings not just remember them, and then had them try to solve the problems in class. They really seemed to enjoy it and they talked to each other a lot more instead of just to me.
- I can see that the use of small groups in my tutes is helping the students to know each other and have more confidence to participate
- I enjoyed the challenge of devising ways of enhancing student interest and motivation which I wouldn’t have even thought of without the program.

B. Teaching Portfolios

Excerpts from these portfolios are provided as evidence that the PTIS does change the way in which the participants think about teaching, prepare and present classes and interact with their students.

1) Reflective Statements

During the internship participants are expected to engage in reflective practice and in the final portfolio must submit a reflective statement. Analysis of these statements confirms that the PTIS provides them with the knowledge, confidence, skills and experience to adopt new approaches in their teaching, and that these can have positive effects on students. Examples from statements include:

- The interactive exercise I used in the lecture was the part that elicited the most positive feedback from students. The reason I tried this exercise was solely based on the fact that we had been encouraged in Internship meetings to use interactive elements in our lectures, even if the group of students was large.
- The Internship has encouraged me to engage with different teaching methods which otherwise I might not have come across
- A couple of students said that they had never written a poem in their lives until my lecture and they were proud that they had tried
- Being a good tutor meant learning to keep my mouth shut or respond to questions with questions rather than answers and this was something I learnt... particularly while undergoing the PTIS.
- I have learned that a successful tutorial depends less on how well I know the subject and more on how well I have prepared a lesson plan and learning activities that are appropriate and interesting for the students.
- Following the stilted discussion in the first part of the tutorial I decided to adopt the ‘think, pair, share’ with the hope of generating a more lively exchange... it as real success as it got the student talking to one another and contributing to the wider discussion.
• I am hopeful that structuring of my class activities ensures students are actively critiquing, analysing and challenging themselves instead of passively listening to others or recalling basic information.

2) Teaching Materials

An analysis of teaching materials used by the participants demonstrates a student centered approach to class preparation and tasks with the setting of clear outcomes; linking class activities to the outcomes, time allocated to opportunities for interaction through activities such as questioning, discussions, simulations, problem-solving and debates; individual tasks followed by feedback; checking for achievement of outcomes at the conclusion of classes and the use of marking rubrics providing clear guidelines for students and constructive feedback rather than purely summative comments. [FP7, FP8, FP9]

This evidence corroborates the claims made in the reflective statements regarding the use of student centred approaches to teaching.

3) Unit evaluations

The participants of the PTIS are required to conduct and reflect on student evaluations of their first and second semester teaching during the program. Reflections which evidence the effectiveness of the PTIS on approaches to teaching [FP7] include:

• As evidenced from my SPOT results from semester one and two I clearly progressed in teaching and I attribute this to the skills and knowledge gained…the internship enabled me to develop my teaching style, become clear about my aims and ways to achieve them

• Before I undertook the PTIS I thought that preparing for a tutorial simply required me to know the content, but I have come to realise that having knowledge myself is of no use if I can’t get the students interested and motivated to learn.

• It is only once content can be packaged within an engaging learning activity that both the activity and the content can have purpose.

Feedback from the Interns’ students further demonstrates the adoption of student centred approaches to teaching through comments such as ‘stimulating discussions’, ‘group work is insightful’, ‘looking forward to the role play’, ‘tutor (intern) kept the class interacting through the unit’, ‘enjoy the depth of our discussions’, ‘good interactive learning’.

Without exception the participants in this review demonstrated an improvement in their unit evaluations between the first and second semester. Allowing for the different groups of students and possibly different subject matter, this is nevertheless compelling evidence that the PTIS has an impact on the teaching quality. Furthermore the majority of comments offered by students refer to being engaged and stimulated in a positive environment and enjoying challenging interactions with their peers.

4) Supervisor review

Interns were required to organise observations of their teaching by a supervisor and a learning partner. Comments from the supervisors confirm that teaching practices improved throughout the duration of the program:

• She significantly enhanced and extended her teaching ability

• Videos used at the beginning of the lecture and again later on…were a great way of getting students’ attention

• The quotes you used throughout the lecture to illustrate points were great. You related them back to the material really well
• You took the explanation to a deeper level
• ...the lecture was particularly good in how it modeled the art of thinking and teasing out ideas.
• ...demonstrated an excellent pedagogical praxis
• Their [lecture] clear structure helped students follow complex arguments and several changes of delivery method kept the audience engaged

Analysis of the various sources of data in the teaching portfolios and comparison of the evidence consistently confirms that the PTIS is effective in developing teacher knowledge, skills and practice as demonstrated through a student centered approach to teaching both small and large classes following participation in the program.

C. Teaching Awards

In 2011 eight participants of the PTIS were nominated for teaching awards in their faculty. Of the eight two had completed the program in 2010, while the remainder had completed in 2008 or 2009. These highly competitive awards are student nominated and require nominees to address and demonstrate the following criteria:

• Approaches to teaching that influence, motivate and inspire students to learn,
• Development of curricula and resources that reflect a command of the field,
• Approaches to assessment and feedback that foster independent learning,
• Respect and support for the development of students as individuals,
• Scholarly activities that have influenced and enhanced learning and teaching.

While the nominations themselves represent a significant achievement, especially when considered within the context of the large number of experienced colleagues, the winning of Excellence in Teaching Awards by 7 participants is further evidence of the way in which the PTIS has influenced approaches to teaching.

D. Program Evaluation

• A 2004 review of the PTIS graduates found that they had an influence on student engagement, enthusiasm and approaches to learning and that they demonstrated pedagogically informed approaches to teaching.

• A further review conducted in 2010 surveyed over 192 graduates of the PTIS and concluded that the PTIS met its intended outcomes, was endorsed by all participants as worthwhile and had enabled all to develop teaching skills and understandings which they had also found to be valuable in other aspects of their professional and personal lives.

6. CONCLUSION

The analysis of the data relevant to the APD Effectiveness Framework confirms that the PTIS does result in changes in approaches to teaching. The data available has related to the short term and the recommendation of this evaluation is that the participants be followed up over the longer term to determine whether the gains from the program are sustained and to what extent their career progression might be enhanced by participation in the PTIS. While this evaluation has focused on the Process and Outcome Indicators, the Input and Output indicators have been addressed in the Evaluation of Overall Provision of TPPs for academics by CATL.
## Academic Professional Development Evaluation

### Informal Programs: ‘Developing Your Teaching Portfolio’ and ‘What Counts As Good Evidence?’

### Program Level

This evaluation of the informal workshops ‘Developing your Teaching Portfolio’ and ‘What Counts as Good Evidence?’ uses the **APD Effectiveness Framework** as a basis for determining the extent to which the design and delivery of these programs supports staff in meeting the relevant institutional guidelines. These programs are part of a suite of informal programs designed to assist academics to think about their teaching and how to evidence their practice, particularly those preparing teaching portfolios or submissions for teaching awards. Together with workshops on ‘Peer Review’ and ‘Evaluating Your Teaching’ they also encourage reflection on the quality of teaching and learning as the basis for improvement.

<table>
<thead>
<tr>
<th>Focus</th>
<th>Input Indicators</th>
<th>Process Indicators</th>
<th>Output Indicators</th>
<th>Outcome Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher orientation/awareness of institutional policies, practices and support</td>
<td>19. Number and range of TPPs related to orientation/dissemination of university policies, processes and priorities related to teaching and learning</td>
<td>20. TPPs clarify institutional expectations/requirements regarding teaching and learning (e.g. assessment, academic conduct, grading, international students, supervision, academic development)</td>
<td>21. Number and proportion of staff attending TPPs</td>
<td>23. Workshop evaluations</td>
</tr>
<tr>
<td>Response to indicators</td>
<td>- ‘Developing your Teaching Portfolio’ and ‘What Counts as Good Evidence’ are both offered twice a year, once in each semester, to enable staff to schedule attendance at an appropriate time.</td>
<td>- The ‘Developing your Teaching Portfolio’ and ‘What Counts as Good Evidence’ Workshops are directly aligned with university policies related to promotion, PDR and teaching awards.</td>
<td>- The two complementary workshops are sufficient to support staff in understanding how to prepare a portfolio and evidence their teaching.</td>
<td>- Participant evaluations of these workshops are very positive with mean scores between 4.13 and 4.88 (max.5).</td>
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<td>- It is a requirement for all staff to have a teaching portfolio (for promotion, PDRs, Study Leave Applications), which must include an organised collection of evidence.</td>
<td>- These 2 workshops enable staff to leave with practical strategies related to:</td>
<td>- The number and proportion of staff attending these workshops tends to be low which might be an indication that only those new to teaching or needing to review their portfolio for promotion are attending.</td>
<td>- Comments from participants highlight the high standard of presentation, the practical and informative nature of the workshops, the clarification of university requirements, the helpfulness of the exemplars shared, the value of the opportunity to think and write about their teaching philosophy, the supportive environment and leadership</td>
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Narrative Exemplar 3
| Evidence | Workshop Calendar | Policy on Teaching Portfolios | Attendance: ‘Developing your Teaching Portfolio’  
2010: 7 (once w/shop)  
2011: 18  
‘What Counts as Good Evidence’  
2010: 17  
2011: 15 | Workshop Evaluations attached |

### Conclusion/Recommendations:

CATL is satisfied that the design and delivery of these two workshops is of a high quality as it meets the Input, Process and Outcome Indicators of the APD Effectiveness Framework. Further consideration needs to be given to marketing of these workshops so that staff can be supported to begin the preparation of their portfolios earlier in their careers. As further evidence of the effectiveness of the workshops it is also considered that a follow up of the participants once they have commenced their portfolios might be warranted. Informal discussion with past participants to determine the worth of this will be pursued.
Blank Narrative Templates


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<th>Data/Evidence</th>
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<tr>
<td>Introduction</td>
<td>Relevant indicators and Evidence (see attached or links)</td>
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## Academic Professional Development Effectiveness Framework

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<th>Process Indicators</th>
<th>Output Indicators</th>
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<tbody>
<tr>
<td>(Insert program or Institutional focus)</td>
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<td>Response to indicators</td>
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**Conclusion/Recommendations:**