Debates over models of professional training have occurred in several health disciplines, including psychology. Currently, clinical competencies form the backbone of training in clinical psychology and in standards for the accreditation of such training programs, with sample domains including ethical and legal issues, assessment, intervention, and experience with a diversity of clients across cultures and the lifespan. We review a range of models for clinical competencies that have been put forth in the international literature and report on results of a survey of students undertaking clinical training as to the methods of assessment used in their training programs. Results showed that direct competency assessment was less commonly used than expected from the stated accreditation standards. One factor behind the results may be that ways to assess such competencies remain elusive. In this article, several models of clinical competencies are put forward, along with a method of assessing such competencies within an Australian context.

Key words: accreditation; clinical psychology training; competencies; teaching.

What is already known on this topic

1 Assessment of competencies as part of training in clinical psychology is receiving increasing attention in the empirical literature.
2 Several models for conceptualizing and assessing clinical psychology competencies have been put forward in the international literature.
3 Accreditation standards for clinical psychology training programs in countries such as the United States have a strong focus on the assessment of clinical competencies.

What this paper adds

1 This paper describes efforts to embed assessment of competencies within clinical psychology training in Australia.
2 Assessment of clinical competencies is described as desirable by both educators and students within current Australian clinical psychology training programs.
3 Directions for future research and exploration with respect to assessment of clinical psychology competencies within the Australian context are offered.

He/she should know his/her own limits of expertise, and should know what to do when those limits are reached (Bashook, 2005).

If competence and incompetence exist [in professional training and practice], how shall we know them? (Rosenhan, 1973, p. 250, cited in Kenkel & Peterson, 2010)

In examining the international literature with respect to training in clinical psychology, interest in the assessment of competencies in psychology has remained robust from the time of the Boulder Scientist Practitioner Conference in the USA in 1949 through today. Since 1949, the Boulder Scientist Practitioner Model (Strupp & Hadley, 1977) has been the dominant model for training in clinical psychology both within the USA, where it originated, as well as abroad (McFall, 2006). Essentially, the Boulder Conference proposed granting equal weight to science and practice within the clinical psychology training. The Boulder Conference also established that training should take place within a university setting, with the goal that those trained were to be “scientist–practitioners” who are prepared to work in either academic or clinical practice settings.

Although the scientist–practitioner model is still extensively evoked today, questions asked about the adequacy of the model have led to the development of other conceptualisations of clinical-training models (e.g., McFall, 2006). Questions about the adequacy of the Boulder Model arose as early as the 1950s in the USA, with a growing interest in clinical training being more focused on professional practice as is the case with law and medicine. The professional doctorate training programs, first proposed in the 1950s, aimed to train persons who would primarily be practitioners—they would be the informed consumers of the clinical research literature, but they would not have a strong focus on the development of research skills and would be training primarily for practice rather than work in academic settings. In essence, these practitioners would learn how to access and use research appropriately to inform their clinical practice. In 1973, a subsequent national training conference in Vail, Colorado was successful in legitimising practitioner-oriented clinical psychology training programs, which have
flourished in the USA and, in the form of professional doctorate programs, are the basis for registered practice in several countries including the UK, as well as assuming increasing prominence in the Australian clinical psychology training landscape (Helmes & Pachana, 2005).

The Boulder and Vail models coexist in the USA and make up the majority of clinical training programs on offer, the former granting Doctor of Philosophy degrees in clinical psychology, the latter granting Doctor of Psychology degrees. The differences between the two types of programs are largely quantitative not qualitative; the clinical opportunities for licensure and practice are similar for students in both types of programs. Many authors (e.g., Huey & Britton, 2002) view the two training models as complementary. The most important common aspect shared by these two training models is the value attached to an intellectual and scientifically based stance, which protects against an uncritical acceptance of knowledge.

Stoltenberg and Pace (2007) present evidence that without adequate scientific training, neither “informed consumerism” (applying scientific articles to clinical practice) nor simply exposure to information (e.g., workshops or other educational or professional development experiences) will allow considered and effective application of empirical knowledge to clinical work. The authors of this article state that “if students don’t learn to directly apply scientific method in their clinical practice (e.g., identify a problem, gather relevant data, develop hypotheses, and systematically test those hypotheses),” they will have difficulty applying acquired knowledge to their clinical practice (Stoltenberg & Pace, 2007, pp. 196). Moreover, this practice should be deliberate and guided by feedback regarding performance and how it compares with optimal performance (Anderson, 2005; Stoltenberg & Pace, 2007). Such training fits well in the academic environment where structured training with feedback is the common practice. Thus, a successful clinical training program incorporates the learning acquired in both academic and practice settings. But how well is this being achieved within the scientist–practitioner model? Are the two main sources of guidance for clinical practice (didactic instruction and supervised practice) sufficiently integrated?

There have been several streams of commentary, debate, and research within the field of clinical psychology, with respect to training over the decades since the Boulder Conference introduced the first notion of a scientist–practitioner clinical training model. Three areas have attracted the most attention: curricular issues, clinical supervision, and clinical placements. The composition of the clinical postgraduate curriculum, as well as its relationship to the undergraduate curriculum, the responsibilities and training of clinical supervisors, and the practical issues around clinical placements (both in university-based as well as community settings) have all been touched upon in the Australian clinical psychology training literature. However, the majority of literature on this subject, both nationally and internationally, takes the form of commentary and debate, with relatively less attention paid to student, academic or practitioner surveys, research trials of training techniques, or, rarest of all, direct evaluation of training models.

From the research published to date, three main issues stand out with respect to clinical psychology training in Australia and specifically its relationship to the scientist–practitioner model of training. First, there is a clear divide between the standards of training for clinical psychologists in Australia compared with the rest of the world. Specifically, most countries require at least a master’s-level qualification to practise independently as a psychologist offering clinical services even at the most basic level. Pressures stemming from international training standards aimed at improving equivalence of standards across countries and allowing free movement of trained psychologists between countries have further highlighted clinical psychology training procedures in Australia (Pachana & Helmes, 2008).

A second and related issue is that because an alternate route to becoming registered to practise independently as a psychologist offering clinical services to the public has existed for many decades, largely based on an apprenticeship model rather than a university-based scientist–practitioner model, supervision has received a disproportionate amount of attention by researchers, academics, practitioners, institutions, and the legislature (supervision is the topic of an article, in this same issue, by Halford and colleagues). Yet important questions of whether supervision is directly responsible for either enhancing therapist competencies or effecting better patient outcomes have been either largely ignored or addressed in a narrow manner (Binder, 1993; Kavanagh, Bennett-Levy, & Crow, 2002; Stein & Lambert, 1995).

Finally, because of the dual pathways to registration in Australia, there are many degrees offered that can lead to registration. In addition, given the several levels of recognised specialisation of service delivery and attendant levels of Medicare reimbursement, and the lack of grandfathering for those trained in earlier models, the degree to which any individual psychologist engaged in the delivery of clinical services to the public may be said to possess specific skills and knowledge is extremely variable. Furthermore, there is consequently a lack of cogent information to provide clients (or to other health-care professionals, for that matter) about the variations in qualifications among providers of psychological services and the necessary levels of expertise required to be able to claim the title of “psychologist” or “clinical psychologist.” It may be that future practitioners will be advised to inform their clients as to the practitioner’s training, expertise, and other factors relating to their skills as a practitioner.

It is this last area of knowledge, skills, and attitudes—what might broadly be termed competencies—which has begun increasingly to attract attention in the last 5 years. Practitioners are interested in competencies because if they can somehow demonstrate that they have achieved a certain level of competency, they may be able to claim specialist-service delivery and higher Medicare rebates. The Australian Psychological Society (APS) and the Australian Psychologists Accreditation Council (APAC) are concerned that competencies be adequately defined on a national scale. Universities are concerned that they maintain accreditation for their teaching programs and strive to prepare students who can meet the demands of the workplace and have their skill set recognised nationally and, if possible, internationally. Students themselves share the concerns of all of these institutions while also being concerned about the cost and time commitment necessary to achieve their qualifications. The government is concerned with meeting increased demand for the services psychologists offer, while simultaneously wishing to
control increasing costs associated with improving access to these services within the public health-care system.

Competencies have been defined in a variety of ways. For the purposes of this article, competencies may be conceptualised as complex and dynamically interactive clusters of integrated knowledge of concepts and procedures, skills and abilities, behaviors and strategies, attitudes, beliefs, and values, dispositions and personal characteristics, self-perceptions, and motivations (Mentkowski & Associates, 2000) that enable an individual to fully perform a task with a wide range of possible outcomes (Marrelli, 1998). (Rubin et al., 2007, p. 453).

The competencies specified as being required for registration as a psychologist in Australia have been generic, given that basic registration does not recognise subspecialties, and given that in Australia, clinical psychology is most often seen as a subspecialty on a par with health and neuropsychology, rather than (as it is in many countries) being viewed as a specialist base on which other further clinical specialisations (e.g., neuropsychology, paediatrics, and geriatrics) are obtained. Competencies in clinical psychology are often enumerated (e.g., within registration guidelines or within APS accreditation guidelines), but rarely in Australia are they put forward within the context of an overarching model of training. The advantage of such a model is twofold: Models are testable, and alternative models may be generated. This is important within the context of clinical psychology training in Australia, given the differences between urban and regional universities (for example, in their access to inpatient psychiatric populations or the numbers of qualified external supervisors available), as well as the demand characteristics of varying demographic populations across the country (both in terms of students and potential clients). Given these parameters, it is surprising how inflexible training benchmarks appear; this is most evident in the continued reliance on numeric calculation of hours of training and of mandated topics (and indeed, contact hours in such topics) within training courses (APS, 2006).

A competency-based curriculum, encompassing competencies as a goal and also as the subject of assessment, rather than as a variety of knowledge per se, remains elusive within Australia. Such a curriculum is characterised by an integration of both practical and scientific knowledge, skills, and attitudes (abbreviated here as KSAs), includes an emphasis on reflective practice and systemic evaluation, and recognises the centrality of the guided application of KSAs in clinical settings. Such a systematic approach to training attempts to link the scientific approach of the scientist-practitioner model with the students’ experiences within applied clinical settings under supervision. The drawback to an hours-based approach to monitoring the achievement of training standards, whether at the course or degree level, is that if the stated milestone (i.e., hours obtained and minimal passing grade obtained) is achieved, this is not synonymous with gaining a specific competency to practice. Within educational systems that have adopted a competency-based approach, as opposed to an hours-based approach, outcomes (e.g., demonstration of a particular skill or demonstration of students successfully competing for jobs) are valued more, and measured more, than other milestones (e.g., grades or hours) (Kenkel & Peterson, 2010). Grades in a course or hours obtained in a practicum setting are proxies for a purported set of KSAs. If one demonstrates a particular skill, say the ability to explain a graded-exposure hierarchy to a client, and then demonstrates its implementation, then one might more easily argue that the student has obtained a skill set (e.g., knowing how to treat a simple phobia). Once such a competency is gained, extending it to other client groups (e.g., a client with a simple phobia who has medical or psychiatric comorbidities) becomes more plausible. Documented competencies attained are a much more reliable guide to growing professional competence, both for the student as well as for the supervisor, than is reliance on hours accrued as a training benchmark.

Similar to client contact, a set number of hours of supervision contact are also prescribed. In the case of guidelines from the APS College of Clinical Psychologists, for every 100–125 hr of client contact, 50 hr of supervision is expected. That is roughly one hr of supervision for just over every 2 hr of face-to-face client contact. According to overseas studies, inadequate supervision is one of the most common grievances among clinical psychology students (Gross, 2006). Similarly in Australia, psychology supervisees (O’Donovan, Dyck, & Bain, 2001) have reported inadequate or inaccessible clinical supervision (Kavanagh et al., 2003). Yet it is hard to see how mandating more hours of supervision is feasible—perhaps what is happening in the supervisory process, and the goals towards which supervisors and students are working, needs to be reassessed.

**Core Competencies: Varying Models**

It is widely assumed that training in psychology contributes to a systematic and progressive increase in levels of expertise (from novice to expert), across the range of competencies required for professional psychology practice. Although there has recently been some progress in the definition and agreement of what these competencies might be (Falender et al., 2004; Hatcher & Lassiter, 2007), it is unclear how these competencies cluster together, what the relative sensitivity of these competencies is to development, and which specific supervision techniques facilitate development of competencies (Gonsalvez & Freestone, 2007).

A variety of models for clinical training have been proposed over the last decade. Each of these models adds new dimensions to the processes and curriculum structure of clinical psychology training programs. Many of these models have incorporated new research and practice directions within the field of clinical psychology (e.g., positive psychology; Seligman & Csikszentmihalyi, 2000). None of these models proposes simply adding on bits and pieces to the existing curriculum in an ad hoc manner. Two such models are briefly described below.

**Matrix Model**

Snyder and Elliott (2005) have developed a “matrix model” of clinical psychology training, which incorporates aspects of positive psychology into the curriculum by emphasising both the strengths and weaknesses of patients and embraces a more community-based, preventive model of intervention. Their model includes four conceptual levels and is equally applicable
across clinical research and practice settings. The four conceptual levels include the individual, interpersonal, institutional, and societal levels in which and through which clinical psychologists practise. They stress assessment and intervention with an eye to both the individual and his or her environment, and stressing systematic measurement and exploration of strengths and weaknesses. Here, strengths are not merely the absence of weakness but truly based on positive characteristics. An example of a strengths-based assessment tool is the Values in Action classification for measuring human strengths (Peterson & Seligman, 2004).

Their model is a clear move away from the stereotypical “50-min hr” with an individual client. Their model embraces dyads and groups as important recipients of interventions, indicates the value of seeing institutions as targets of care within a consultation or consultation- liaison role, and puts an emphasis on primary prevention and population-based mental health initiatives. In operationalising their model, Snyder and Elliot (2005) stress the importance of the mentoring role within training contexts, point out that greater attention will need to be paid to special populations such as children, older adults, and minority groups within training programs, and a greater recognition of how cultural and national zeitgeists influence how both the wider society as well as the profession of psychology more particularly views the current reality, and communicates this reality to its students. Finally, they seek to redress the disconnection (either real or perceived) between academia and clinical practice by urging greater linking between the two. This includes moving towards integrating the empirical data generated by research, such as double-blind, randomised controlled trials, into the less clear and clean realms of everyday practice. This can only help the facilitation of knowledge transfer between these two spheres of practice and can benefit novice therapists seeking to navigate between these two worlds.

Finally, Snyder and Elliot (2005) comment on the nature of accreditation practices. They write,

We believe that [clinical training] programs should allow students to select subsets of [competencies] that reflect their projected career trajectories. Our field has become far too large to absorb all of these topics at the predoctoral level. We believe that accreditation should allow students to acquire a base of knowledge, and then provide flexibility for more specialized coursework (p. 1038).

**Cube Model**

A so-called “cube model” for the development of clinical psychology competencies has been developed by Rodolfa et al. (2005). This model outlines the crucial elements necessary for the development of a professional psychologist, specifically, the domains of functional competency and the intellectual and interpersonal foundations on which they are based. This cube also portrays the developmental context in which the competency domains are developed from the beginning stages of doctoral training through lifelong learning.

The cube consists of three orthogonal dimensions pertinent to training: foundational competencies, functional competencies, and stages of professional development. The axes are as follows:

- **Foundational competency domains** (reflective practices/self-assessment, scientific knowledge and methods, relationships, ethical and legal standards/policy issues, individual and cultural diversity, and interdisciplinary systems), reflecting core building blocks of knowledge underpinning functioning as a clinical psychologist;
- **Functional competency domains** (assessment/diagnosis/conceptualisation, intervention, consultation, research/evaluation, supervision/teaching, and management/administration), reflecting knowledge, skills, and attitudes required to actually perform the work of a clinical psychologist; and
- **Stages of professional development** (doctoral education, doctoral internship/residency, postdoctoral supervision/residency/fellowship, and continuing competency development), representing a developmental context in which foundational and functional competencies are acquired.

These domains continue to be enhanced and expanded throughout the career of each psychologist. Moreover, the cube model assumes that when a specialty in psychology is sought, distinctive knowledge, skills, and attitudes are established and developed in the functional competency domains. However, all specialties share the same foundational and functional competency domains central to psychology as a profession. What differentiates specialties is the way in which the foundational and functional competency domains are intertwined by specific configurations of the parameters of practice. For example, each specialty has the basic foundation of assessment in common, but a particular specialty’s assessment tools diverge on the basis of the issues and populations examined within a specific setting.

The cube model has repercussions for educators, practitioners, and boards of psychology. Boards can utilise this model in combination with other competency models to determine competency domains necessary for practice. They can also use these models to develop efficient measures that evaluate the competency of candidates seeking a license in psychology. Furthermore, with this model, practitioners can decide which domains of practice are valuable to choose for further training to increase their ability to offer safer and more effective services to the public. Finally, this model can aid educators (and the profession in general) to understand the sequence of training that results in the most competent general and specialty practice in professional psychology.

**Implications of the Matrix and Cube Models for Competency Assessment**

Much of the accreditation and standards literature with respect to clinical psychology in Australia makes reference to the Boulder (and more occasionally, the Vail) models of training. Empirically validated assessment, diagnosis, and treatment modalities are emphasised in training. Yet in designing curricula and the assessment of competencies, the matrix and cube models offer in our opinion a far richer roadmap to training clinical psychologists for the next decade and beyond. For example, the health-care system, including private health funds, is placing increasing emphasis on preventative models of
care, emphasised in Snyder and Elliott’s (2005) cube model. Envisioning training in more explicitly developmental terms, for example, in specifying foundational competencies and stages of development, is encapsulated in Rodolfa et al.’s (2005) matrix model.

One step in moving forward to see how current training models might benefit from realignment with modern models of training such as described above is to examine what stakeholders in the training process, namely students and training directors, say are strengths and weaknesses of training. These are examined below, with a reference back to the cube and matrix models of training.

Data From Our Surveys: What Students Say

Data collected from a survey of first-year students’ experiences of postgraduate clinical training programs across Australian universities suggested that students thought that practically based learning and assessment tasks supported the development of skills related to clinical competence (Scott, Pachana, & Sofronoff, 2011). Students identified the most effective teaching methods that supported their learning, which were in use across Australian universities, from a list of eleven possible choices. The top six teaching methods according to students included (in order of importance) individual clinical supervision, case examples, lecturers’ own case examples, demonstrations and modelling, interactive workshops, and group clinical supervision. The latter three most effective teaching methods identified by students were among the least in regular use across Australian universities. Furthermore, one of the most common teaching methods in use, reading lists, was also the least effective teaching method according to students’ ratings.

Students identified the most effective assessment methods that supported their learning, which were in use across Australian universities from a list of eight possible choices. Four of the eight assessment methods were identified by students as being particularly effective, with average ratings greater than 4 (out of a possible 5): audio/video direct observation of practice, case studies, case reports, and live demonstrations of clinical skills/viva (Scott, Pachana, & Sofronoff, 2011). One of the most effective methods of assessment on average according to students, live demonstrations of clinical skills/viva (mean \( M = 4.1 \), standard deviation \( SD = 0.97 \), was also one of the least commonly reported as being used regularly across Australian clinical postgraduate training programs (71%). Therefore, there appears to be a divide between the teaching and assessment methods that students across Australian universities believe, on average, to be the most effective teaching and assessment methods to support the development of skills related to clinical competence and those that are universally employed across postgraduate clinical training programs in Australia. Moreover, the continuation of instruction and assessment techniques that are not intimately tied to actual demonstration of skills is highlighted in the matrix model, where much attention is paid to decreasing the rift (either real or perceived) between training and assessment techniques and modalities and real world practice of skills. This is particularly important in ensuring that didactic material and practicum experiences are well integrated. Likewise, the developmental perspective of the cube model could assist clinical teaching staff and practicum supervisors to better discuss ways to ensure clinical training reflects the progressive attainment of skills and confidence rather than being more haphazard.

A Model of Competency Testing Within the University of Queensland (UQ)

Many programs throughout Australia and beyond have begun to use a variety of competency-based assessments within coursework and placement components of clinical training. For example, in some universities, clinical competencies are assessed in coursework subjects by asking students to video record or to demonstrate specific competencies via role play. For the last 8 years, the clinical training program within the School of Psychology at the UQ has developed and refined a template for the delivery of competency-based testing of clinical practice skills, both within the clinical placements in the first year of training as well as within individual subjects within the program. We describe ours in-depth here for illustrative purposes, as such a model of assessment ties in well, especially with the cube model of training, where successive testing of competencies within a training program can assess both development of increasingly sophisticated skills as well as chart attainment of breadth and depth of training across subspecialty areas.

The development of competency testing at UQ was first raised amidst concerns that the passing of students in the internal clinic-based placements should not simply rest on the judgments of individual supervisors but should seek to assess more systematically and objectively the basic competencies one could expect to attain after one full year of clinical coursework and placements. It was decided that the competencies chosen would map onto the competencies specified at that time by the Psychologists Registration Board in Queensland, as competency to practice, as a clinical psychologist was being assessed, rather than specific knowledge gained in any particular course.

Setting up the competencies in this way had an immediate twofold effect. First, it required all of the teaching staff to closely examine the content of their courses to determine where exactly these competencies were taught. Second, in communicating the nature and content of the competency examination to the students and external placement supervisors, it made all concerned more aware of the overarching goal of general competency across these clinical practice areas. Example areas of practice competency examined include ethical, legal and professional matters; assessment, diagnosis and formulation; and intervention strategies. The format for the exam was adapted from the UQ School of Medicine’s version of similar competency assessment protocols.

These Multi-Station Assessment Tasks (MSATs) were developed with the twin goals of objectively and formally assessing student performance in these areas, as well as providing feedback to the students of how they were tracking towards gaining the competencies that would ultimately lead to the granting of their degrees and full registration. With these goals in mind, a PASS–RECYCLE format was adopted, with students failing one or two of the tasks within the assessment cycle being asked to repeat these after some remediation work supervised by their placement supervisor. The MSAT thus represents both formative
and summative assessment. Although placement supervisors on internships offer mid- and end-of-placement evaluations, the student’s performance on the MSAT is what determines passing or failing the placement. A failure of all or nearly all of these tasks would require that a student repeats the internship (and re-enrol and pay fees for the repeat). The feedback provided to students, irrespective of their mark, always includes written feedback on strengths of their performance as well as areas for improvement. Observing the student grappling with the clinical material presented gives the clinical teaching staff insight into how the student copes with a novel practice problem. Objective rating is perhaps enhanced by the fact that rather than being in the position of direct clinical supervisor, treading a line between supportive mentor and critical performance evaluator, the clinical teaching team can assume the role of assessor more fully.

The MSAT examination picks up more than content knowledge; it also provides a way of ascertaining how clinical students deal with pressure and control their own anxiety, how they cope with a range of clinical examiners, and the degree to which they are capable of explaining their answers, rather than just repeating material learned “by rote.” With respect to anxiety or lack of confidence on the part of a student failing to pass a particular station, remedial work might be targeted to address these specific individual issues. Students come to training programs with varying levels of experience working in professional settings, with different abilities that may require adaptation, as well as varying cultural backgrounds. The MSAT examinations have been carefully designed with these additional variables in mind.

The MSAT itself is composed of a series of tasks reflecting the various content areas under assessment. Each MSAT “station” is carefully constructed to present a clinical scenario to the student. The student digests this clinical information (presented in oral or written format, sometimes enhanced by video footage) and then answers a series of questions designed to test knowledge of the appropriate responses required. The vignettes are constructed with input from the entire clinical teaching team, and the response sets are designed to be standard in administration, as typically at UQ, more than one examiner administers any particular station to reduce the time of the total exam. This then affords a good opportunity to assess interrater reliability, as well as avoid conflicts (such as a student being evaluated by his or her main research supervisor, for example). Total time for each MSAT station is approximately fifteen min.

The stations are designed to reflect situations encountered in everyday clinical practice and are also designed such that the answers sought should be part of a clinical student’s basic knowledge skill set and not require any external source of information. Scoring is akin to familiar standardised tests such as the Wechsler scales, in that responses may be graded in descending order of correctness or reflecting varying degrees of completeness (i.e., 2, 1, or 0 points). Some vignettes lend themselves to exclusion rules, such that if a particular response is either offered or not offered, the student automatically fails the station. Such exclusion rules are meant to reflect serious errors in clinical judgment that violate ethical or competence minimum standards. For example, in a scenario of risk assessment, if a lethal means of committing suicide is mentioned in the scenario but ignored by the student, the ramifications of this have clear implications for the safety of patients and the efficacy of the student therapist. An example of a simplified vignette and scoring system is provided in Appendix A.

Students and supervisors alike recognise the value of the MSAT. Students now have a clear indicator of achievement of specific competencies, which by their own self-report is important in their growing professional competence and self-esteem. Clinical teaching staff feels more reassured that competencies are assessed objectively and in a standardised manner, not only for a given cohort but also across cohorts. The discussion of students’ performance in the debrief session following the examinations gives supervisors food for thought with respect to improving their own courses. Clinical supervisors are now familiar with the MSAT competencies to be tested and have an eye to this when conducting supervision across semesters. Our students also have informally reported to us that their repeated exposure to direct assessment of their competencies has afforded them greater confidence and skill in handling task-based interview formats for clinical positions within the health service.

The MSAT format has worked so well that we at UQ have expanded it in several ways. First, we now have MSATs at 6- and 12-month intervals into training to capture in a more refined way developmental tasks achieved over the course of the critical first year of training. Students at the end of this first year of training report feeling more confident about going on to external placements. In turn, external supervisors feel reassured that the students they will be supervising have achieved critical core competencies that will allow them to function adequately in their clinical settings. The UQ clinical training postgraduate degree offerings include specialisations for professional doctorate students in clinical and health psychology, clinical and neuropsychology, and clinical and geropsychology. It is important to note that all of these students, including our neuropsychology students, see advanced psychotherapy cases within their first year and also demonstrate their psychotherapy formulation and treatment skills within the MSAT. Our clinical neuropsychology students also sit their own MSAT, as do the students cycling through the Positive Parenting Program internship. The clinical geropsychology students sit their MSAT within our required Applied Gerontology course, which all of our first-year students take. Several of our courses now regularly require the demonstration of competencies gained through an MSAT-like procedure. This has had the result of reducing reliance on final written examinations or large final assignments.

The MSAT format to assess clinical competence (which currently constitutes nearly 50% of all assessment in the coursework portion of the UQ clinical training program) is continuously refined. The trialling of “unmanned” stations, wherein a student enters a room, reads a set of instructions, and acts on these without the need of having an examiner present, will commence next year. Examples of such stations would include interpreting assessment data or drafting a brief chart note based on given materials. Having more stations increases the examination’s reliability as well as the amount of content that can be covered; unmanned stations are a way to increase these factors without increasing the number of clinical personnel in the exercises.

© 2011 The Australian Psychological Society
Potential Overlooked Competencies in the Australian Context

There are requirements by APAC for competencies that address ethics and professional practice, as is usual in most countries, but possibly the broader, more social aspects of practice as a psychologist within a wider context are neglected. These include issues of the public responsibility of the individual professional, as well as the profession more broadly, to serve the broader society. This goes beyond acting ethically with respect to individual clients and colleagues to understanding better how as an individual practitioner one fits into the broader landscape of the discipline and profession of clinical psychology. It might also be said to include a recognition of the role of a professional society, registration boards, other institutional committees, and boards as together helping to define and delineate the role of the professional within a variety of contexts, including an international context.

There is currently no competency that directly speaks to diversity within clients, fellow professionals, or society more broadly. Within an Australian context, and indeed with an increasingly international global context for the practice of professional psychology, this seems a serious omission. Diversity is often covered within an individual course, but specific KSA's with respect to diversity are currently poorly articulated. Moreover, the possibility of exposure to a diverse set of clients may vary by institution, as will the value placed upon the pursuit of such diversity within a student's clinical training experience.

Leadership as a clinical professional is often almost completely ignored during training. Offering leadership courses addressing how clinical psychologists can use their skills to lead effectively both clinical and management teams is important if the profession wishes as a whole to take on a more effective leadership role within health-care systems in Australia.

Finally, there is a question of competence as an independent practitioner. This takes many forms within training programs internationally. Some might see seeking self-knowledge and perhaps even a course of therapy oneself as a key to achieve competence as a practitioner on a personal level. Often, students are taught within a program the rudiments of running a private practice (e.g., legal and financial issues attendant on this), yet seldom are students well-grounded in how to take care of their personal health and quality of life as a therapist (e.g., how to maintain balance between personal and professional commitments and how to proactively avoid stress and burnout). In this regard, assisting students to recognize the value of mentors and peer supervision is important (Campbell & Anderson, 2010, cited in Kenkel & Peterson, 2010).

Faculty Within Training Programs

Faculty within clinical training programs strive to ensure that their students obtain the necessary competencies required. To do so requires both coursework offerings as well as lecturers themselves to serve the broader goal of ensuring these competencies are met. This may mean that an individual lecturer’s preferences with respect to course materials and evaluative procedures are curtailed to ensure that students receive a coherent and comprehensive set of experiences to prepare them for professional practice (Kenkel & Crossman, 2010). This requires staff teaching into such programs to work together and, moreover, to work closely with colleagues in adjunct roles (e.g., externship supervisors) to ensure these training goals are met.

Clinical teaching faculty, especially those in teaching and research roles, often are under multiple pressures to obtain grants and publish quality outputs while at the same time doing supervision, maintaining their own clinical practice, and devoting some time to professional organisations and other external bodies. The pressures of publishing and the pursuit of tenure have been documented in the literature (see Brems, Johnson, & Gallucci, 1996; Roy, Roberts, & Stewart, 2006). Adjunct faculty within clinical psychology training programs often play a pivotal role in training, at times with little recognition or remuneration. Finally, balancing these multiple roles within a training program may leave the academic clinician feeling split in terms of professional identity and goals.

Clinical faculty have their own research areas and agendas. However, there needs to be some reflection and empirical enquiry with respect to teaching methods and models, not just assessment and intervention practices. Case studies (e.g., Bird et al., 1998) and pilot work have a place in the research literature; similarly, case studies and exploratory work play an important role advancing the scholarship of teaching within clinical training programs (Calhoun, Pilkonis, Moras, & Rehm, 1998). This is certainly emphasised in both the cube and matrix models of training.

Just as students require guidance in dealing with difficult cases, or with patients who test professional boundaries or pose other clinical challenges, faculty in clinical training programs face hurdles in dealing with particular students. Clinical training is challenging to the most dedicated and gifted students. When students struggle to achieve competencies or are failing to meet standards in terms of clinical competencies, particularly regarding interpersonal or ethical issues, the way forward may be difficult for all parties. Programs need to have standardised, valid, and tested means of assisting students attempting to gain competencies, as well as well-articulated processes to advise students that a clinical psychology career path may not be right for them. This is an essential component of a good training program. Often, so much effort is put into defining what the highest standards of practice are, it can be difficult to define the lines between adequate and inadequate practice clearly for all parties concerned.

Finally, faculty serve as important early mentors to clinical students. They model the scientist–practitioner model in all that they do. They also serve as sounding boards, research advisors, career counsellors, and supervisors of clinical practice. Negotiating these multiple roles with their attendant boundary issues can at times be challenging. Good relations between colleagues within clinical training programs are perhaps an underestimated resource within such training programs.

Data From Our Surveys: What Clinical Directors Say

According to a recent survey of directors of Australian postgraduate clinical training programs, competency-based assessment was being used to some degree (Scott, Pachana, &...
Sofronoff, 2011). The percentage of program content that was assessed in this way, however, varied greatly across the sample and depended upon the form of competency-based assessment used. The conclusions drawn from the content analysis of the survey data was that competency-based assessment was used to a large extent through observation or videotaped review of practicum work and to a lesser extent in coursework, through such means as role plays, live or video demonstrations and viva, and case profiles. Written examinations formed part of the assessment of coursework in most programs (see Table 1). The extent to which these were included also varied widely; however, the directors of clinical training programs reported that written examinations were used in one or more units in 94% of Australian postgraduate clinical training programs. Some programs included examinations in all courses. Although the range of program courses that used examinations varied widely, written examinations were commonly used in first-year postgraduate clinical courses, or to assess theoretical knowledge, knowledge of the Diagnostic and Statistical Manual (DSM), and in psychopathology courses.

### The Impact of Accreditation on Clinical Training

The degree to which clinical training has needed to conform to a more “cookbook” approach with respect to how courses are structured has not allowed for the ability to explore alternate ways to present the clinical content and clinical client contact in new and more creative ways. It has also been difficult to allow for students to study in emerging areas of importance in clinical settings, such as geropsychology and rehabilitation. There are data that suggest that clinical programs either cannot fit such content in or, alternately, believe that because they cannot do the subject justice (in their mind), it is best perhaps not to mention it (Pachana, Emery, Konnert, Woodhead, & Edelstein, 2010). This is of course not a phenomenon unique to Australia, as areas of clinical content are vast and expanding monthly, and the time within training programs is all too finite. Yet freedom from the constraints of strict ratios and prescribed hours could lead to a greater freedom to experiment and ultimately improve clinical training.

One strong recommendation, based primarily on the training model literature as well as results of or student surveys, would be to establish a minimum and maximum range of hours of supervised training, to be conceptualised with more attention to a developmental model of acquiring competencies, as in Rodolfa et al.’s (2005) cube model. Allowing for a more flexible and individual approach to the construction of training programs, whereby the measure of a program’s success lies more in demonstrating how competencies are actually measured rather than documenting primarily in terms of hours of coursework and hours of client contact, would be a positive development in the Australian clinical psychology training landscape.

What would this mean? Prescribed minimum contact hours for coursework and practical work are inevitable. But within these constraints, by turning the focus to the achievement of basic fundamental competencies, progressing to increasing sophistication and nuance of practice would be beneficial for student, clinical lecturer, and clinical supervisor alike. Designing curriculum along the lines of the cube model, operationalising clearly how the student gets from novice to competent early-career practitioner, perhaps with some attention paid to how skills might continue to develop through professional development, with a clear emphasis of assessment of functional competence and a recognition that students travel through developmental stages on their way to acquiring professional competence, would be most useful. More direct measuring of clinical competencies at regular intervals throughout the degree by clinical teaching faculty (in other words, not solely relying on external supervisor reports of competence) would ensure that students were given clear guidance on how and in what time frames clinical skills need to be acquired. Remediation and the need to repeat a course or placement, and the limits on the number of times such a course could be taken before a student was deemed to have failed in their training, would also address vexing problems of students achieving milestones in a timely fashion.

A renewed focus on measuring competencies for our students, as well as directly measuring the competence with which clinical training programs actually train their students, would be useful in moving the clinical training curriculum forward into the next decade. How well clinical training programs are functioning should be reflected by performance indicators such as students’

### Table 1  The Percentages of Postgraduate Clinical Psychology Training Program Directors’ Reporting Program Content Covered by Competency-based Assessment and Exams

<table>
<thead>
<tr>
<th>Content area</th>
<th>Directors’ report on competency-based assessment used (%)</th>
<th>Directors’ report on exams used (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practicum</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Psychometric assessment</td>
<td>75</td>
<td>0</td>
</tr>
<tr>
<td>Psychopathology</td>
<td>28</td>
<td>7</td>
</tr>
<tr>
<td>Psychotherapies</td>
<td>69</td>
<td>3</td>
</tr>
<tr>
<td>Neuropsychology</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Health psychology</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Professional practice</td>
<td>41</td>
<td>10</td>
</tr>
<tr>
<td>Diagnostic and Statistical Manual</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>One or more courses</td>
<td>75</td>
<td>94</td>
</tr>
<tr>
<td>Most or all courses</td>
<td>3</td>
<td>46</td>
</tr>
</tbody>
</table>

DSM = Diagnostic and Statistical Manual.
success in gaining employment, success in publishing research, perhaps in how well former students remain engaged in assisting to train future generations of clinicians.

The following is an excerpt taken directly from the US Committee on Accreditation guidelines for evaluation of clinical psychology training programs:

A program or institution has the right to be evaluated in the light of its own education and training philosophy, model, goals, objectives, and methods, insofar as they are consistent with those generally accepted as appropriate to the profession . . . A program should therefore have a clear, coherent, and well-articulated description of the principles underlying its training philosophy or model, as well as a clear description of its training mission (i.e., goals and objectives), and the resources, methods, and processes by which it proposes to attain its desired training outcomes. (Committee on Accreditation, 2005, pp. 6–7).

This environment allows for training programs to strive ideally and to evaluate continuously how their training meshes with their own pedagogical goals. The programs are asked not just to tick off staff-student ratios, facilities offered, and examples of how coursework and supervised training is offered and assessed but also to demonstrate competence by their outputs: Where are their students employed? What are employer ratings of their students’ performance, and so forth. A minimalist structure in terms of how evidence of good training is presented is given, with the focus clearly on outputs:

Consistent with this approach, the accreditation guidelines and principles do not contain a “checklist” of criteria. Rather, they identify and describe general domains that are considered essential to the success of any training program in professional psychology. For each domain, programs are expected to document either their potential for success in these domains (in the case of applicant programs), or their record of achievements in these domains (in the case of already accredited programs; CoA, 2005, p. 7).

Conclusions

Where to from here? Research in this area is a strong suit within Australia. More widespread use of clinical training models such as the matrix or cube models in the construction of curricula and the integration of practical experiences could be immensely useful in preparing students for an ever-changing health-care environment. The increased use of assessment methods that directly measure the acquisition of clinical competencies decreases the rift between didactic and practical training, serving to reinforce the model of clinical practice tied to a strong empirical base. The same principles of the measuring of the standards and efficacy of training programs need to be put into play. Rather than relying on proxy measures such as proving so many contact hours were taught or supervised, a training program should be able to offer proof that its outputs, namely its students, are recognised as well trained and highly skilled.

Perhaps, it is time to throw the Australian clinical psychology training cookbook out.

Acknowledgements

The support for this work has been provided by the Australian Learning and Teaching Council Ltd., an initiative of the Australian Government Department of Education, Employment and Workplace Relations (Award PP8-900 to N A Pachana, K Sofronoff, A Baillie, M Kyrios, G Murray, A O’Donovan, and E Helmes). The views expressed in this report do not necessarily reflect the views of the Australian Learning and Teaching Council.

References


Committee on Accreditation (2005). Guidelines and principles for accreditation of programs in professional psychology. Washington, DC: APA.


Appendix A: MSAT Example Scenario

Scenario: John, a 14 year old with “behavioural issues” at home, is seen by you in the company of his parents. You are the second psychologist the parents have seen, and they were not happy with outcomes from their previous therapist. As a result, they are reticent and somewhat suspicious. The referral was very unclear about the specific nature of the issues at home.

<table>
<thead>
<tr>
<th>Question 1</th>
<th>Possible marks</th>
<th>Final Score:</th>
<th>Student’s Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>What types of questions should you ask about this client’s behaviour?</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When did the behaviours first start?</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When do they occur (pattern of occurrence)?</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often (frequency of occurrence)?</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is happening in the environment at the time of the behaviour (antecedents)?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe the behaviour(s) (behaviour).</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How do the parents respond to the behaviour (consequences)?</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>