



Archived at the Flinders Academic Commons:

<http://dspace.flinders.edu.au/dspace/>

This chapter appears in *Innovations in Allied Health Fieldwork Education – a Critical Appraisal* edited by L. McAllister, M. Paterson, J. Higgs and C. Bithell. Published: 2010 by Sense Publishers.

Book available from publisher's website:

<https://www.sensepublishers.com/catalogs/bookseries/practice-education-work-and-society/innovations-in-allied-health-fieldwork-education/>

McAllister, S., Lincoln, M., Ferguson, A. & McAllister, L. (2010). Dilemmas in assessing performance on fieldwork education placements. In L. McAllister, M. Paterson, J. Higgs & C. Bithell (Eds.), *Innovations in allied health fieldwork education: A critical appraisal* (Vol. 4, pp. 247–260). Rotterdam, South Holland: Sense Publishers.

© 2010 Sense Publishers. All rights reserved. Chapter reproduced here with permission from the publisher.

SUE MCALLISTER, MICHELLE LINCOLN, ALISON FERGUSON  
AND LINDY MCALLISTER

## 22. DILEMMAS IN ASSESSING PERFORMANCE ON FIELDWORK EDUCATION PLACEMENTS

There are many approaches that aim to assess students' ability to practise competently in the workplace. The reliability and validity of these assessments, their ability to predict professional performance in the workplace, and their often paradoxical negative impact on learning present dilemmas that have been discussed widely in the health education literature. In the meantime, the "real" challenge remains – assessment of actual performance in real workplaces (Wass, van der Vleuten, Shatzer, & Jones, 2001). It is this challenge that we embraced when we embarked upon the process of developing a competency-based assessment of speech language pathology students' observed performance in the workplace in 2001 (McAllister, 2005). This program of research has resulted in the development of COMPASS®: Competency assessment in speech language pathology (McAllister, Lincoln, Ferguson, & McAllister, 2006). Projects have also been undertaken to support the adoption of COMPASS® across all speech language pathology programs in Australia and New Zealand as well as in Singapore and Malaysia (Ferguson, Lincoln, McAllister, & McAllister, 2008; Lincoln, Ferguson, McAllister, & McAllister, 2008). Our understanding of the assessment of observed performance using a competency-based framework continues to be developed through participation in research and collaborative benchmarking projects. We believe this experience in assessment is applicable to the assessment of performance across the allied health professions.

In this chapter we draw upon this experience to share some frameworks we have used to manage dilemmas arising in competency-based assessment in the workplace and to guide decision making in assessment design and application. These include addressing fairness, and its interaction with objectivity and subjectivity and relationship to reliability, and choosing assessment formats and processes that are both feasible and support valid assessment – see Table 22.1 for a summary of these in relation to the approach to assessment with which we have been involved. Assessment also impacts on learning and involves competing agendas of certification for practice and guiding of students' learning and development. These considerations need to be balanced with issues of authenticity – are we really assessing what we want to assess? To this end we need to understand the nature of competence in allied health professional practice.

Table 22.1. Dilemmas and examples of strategies

<i>Dilemma</i>	<i>Examples of strategies (from COMPASS®)</i>
Learning and competence	Assessment includes relevant generic and occupational competencies Competencies emphasise principles and qualities of practice, rather than being checklists of isolated skills
Fairness	Assessment design and process supports quality judgment Rating format includes clear rating criteria Manual provides examples of observable behaviours Rating scale is validated Measurement model focuses on quality assessment Students involved in development and assessment process Judgment based on multiple assessments over student's placement Rated by person who best knows student's typical performance
Authenticity	Competencies developed with reference to profession's understanding of nature of practice Assessment conducted in the workplace to reflect complexity, scope of practice, integrated demonstration of variety of competencies Performance rated by real practitioner on real tasks with real people
Impact on learning	Developmental pathway is described and subsequent assessments build on this (e.g. summative assessment becomes formative for the start of the next placement) Assessment is non-graded and criterion-based not normative Detail in assessment resource allows for developing learning goals at formative assessment and planning for learning

### *Nature of Competence*

Given that fieldwork education placements are about learning the doing of allied health practice, competency-based approaches align well with developing criteria for teaching and assessment of that doing. However, the nature of professional competency and the appropriate definitions to support development of teaching and assessment approaches have become the focus of protracted debate. The dilemma central to this debate is development of a definition of competency that includes both specific skills as well as the ability to practise in a range of complex and dynamic workplace environments.

### *Competency Frameworks*

The most dominant competency paradigm in health professional education has its origins in medical education. It takes a reductionist approach that aims to describe every skill that has to be competently performed for the professional to be

deemed competent. As a result, many competency frameworks have presented detailed mapping of professional practice. This approach has been criticised as unwieldy in practice and as neglecting the integrative aspects of competency (i.e. the whole of professional practice is more than the sum of its parts (Gonczy, 1992). Hodges (2006) has highlighted that the discourse, or world view, espoused by this type of reductionist competency-based education model risks creating professionals who have isolated skill sets that are not integrated with the knowledge to create complex meaningful performance in the workplace.

Reductionist approaches have resulted in large curriculum documents and assessment approaches that “slice and dice” (Albanese, Mejicano, Anderson, & Gruppen, 2008, p. 7) competency into smaller and smaller units and neglect holistic aspects of professional practice. The dilemma seems to be that the harder a profession tries to define competency for teaching and assessment, the further it moves away from what it understands as real professional competency. Students’ overall competence is assumed to be represented by adding together performances measured by assessments of subsets of competencies using different stand-alone formats and processes that appear to bear little relationship to each other. One example, cited by Epstein (2007), uses history taking and examination (MiniCEX) + overall performance in placement (in training assessment forms) + specific technical skills (Direct Observation of Procedural Skills or DOPS) + communication skills (360 degree feedback form) and so forth = overall level of competence.

The challenge is to reflect an understanding that professional practice involves the “competent exercise of complex professional judgment across all tasks and contexts of the profession” (McAllister, 2005, p. 107). An alternative combined framework for conceptualising competence has emerged in allied health, particularly in Australia. These frameworks differ from those previously described in two major respects. First, competencies are framed as active processes of professional practice that interact with each other. For example, physiotherapy and speech language pathology (among others) identify professional practice as including processes of assessment, interpretation and analysis of assessment findings, planning intervention, implementing intervention, and professional development (Speech Pathology Association of Australia, 2001; Dalton, Keating, & Davidson, 2009). In this view, competencies are processes involved in the practice of our professions, or “the things we do” when working with patients or clients. This is different from static skills-based competencies (things we have) and roles (things we are). Professional action therefore is seen as arising from the integration of aspects of knowledge, skill and personal qualities to form these processes or practices, rather than from a collection of separate discrete components of competency. Second, this process or “doing” orientation is understood as including generic competencies, those aspects of professional practice that enable us to coordinate and integrate occupational competencies holistically. This approach to defining competencies may also reflect differences in understanding of the nature of learning and assessment between medicine and other health disciplines. Allied health practitioners appear to view learning as a process, unlike the more dominant Western paradigm that views learning as a product to be acquired (Hager, 2004).

For example, in speech language pathology research, practitioners, educators and students all identified integrative generic aspects of practice as important for inclusion in any assessment of performance in fieldwork education placements (McAllister, Lincoln, Ferguson, & McAllister, 2010). As a result, assessment items representing four groups of generic competencies were included for assessment in COMPASS®: reasoning, lifelong learning, communication and professional behaviour (McAllister et al., 2006). These four competencies are seen as critical for integrating holistic professional action across the occupational competencies (McAllister et al., 2010). Other competency frameworks, for example in physiotherapy, have included generic competencies such as communication and professional behaviour, and these are represented in their assessment of students' observed performance in fieldwork education placements (Dalton et al., 2009).

The allied health focus on integrative and process aspects of competency also facilitates the development of clear descriptors and exemplars of performance that are indicative of the competencies of interest. Qualities of these performances can also be described across a continuum of development, allowing for competency to be vertically integrated over time across practice and across the scope of practice. For example, COMPASS® includes three levels of behavioural descriptor to guide ratings against each of the competencies: novice, intermediate, and entry-level (McAllister et al., 2010). The development of these descriptors was guided by combining concepts of managing complexity, transforming knowledge into practice, and degree of support/guidance required to perform (McAllister et al., 2010). The pharmacy profession in Australia has recently begun describing levels of performance across curriculum against pharmacy competencies with reference to five qualities: skills development, level of support, time taken, clinical reasoning and focus on self versus client (personal communication, Ieva Stupans, 2009).

Basing workplace performance assessment on these principles also allows the development of more manageable frameworks that can be reliably and validly used by fieldwork educators to assess student performance. For example, fieldwork educators can validly assess a student's performance across 11 competencies on COMPASS® (McAllister et al., 2006) and across seven competencies on the *Assessment of Physiotherapy Practice* (Dalton et al., 2009). These frameworks also permit this brief, feasible assessment format to be supported by resources providing more detail when more difficult assessment judgments are to be made, a need strongly identified by fieldwork educators (McAllister, 2005).

### *Conflicting Theories of Learning and Competence*

However, as is to be expected when discussing dilemmas, there are alternative viewpoints. Including generic competencies requires specification of tacit understandings within practice which may not be amenable to description. Yet this may not be as great a barrier as previously anticipated, as validation of the COMPASS® assessment indicated that the generic competencies were well described and understood by fieldwork educators and students (McAllister, Lincoln, Ferguson, & McAllister, 2004). The process approach to competency accepts that judgment is central to

assessment, and aiming for objectivity through the use of specific (or reductionist) checklists of items is counterproductive. Process-based competencies mean that specific prerequisite skills that must be acquired before graduating into the profession are not specified as individual items of assessment on placement. This view of competence as processes rather than products may at times clash with other unarticulated and commonly held reductionist views of learning and how it should be assessed.

### FAIRNESS

To paraphrase the art connoisseur, surely “we know competence when we see it” – so where do the dilemmas lie? Why are so many of us able to empathise with Chapman’s experience of “agonising” about assessment of students’ performance in fieldwork education placements (Chapman, 1998, p. 157)? Although “agony” may be too strong a word for some of us, there is no doubt that the process of assessing students’ fieldwork performance has an affective element for fieldwork educators (Duke, 1996; Ilott & Murphy, 1997). Notions of fairness are central to these tensions (Chapman, 1998). We wish to be fair to our students, clients, profession, workplace, and ourselves as assessors. Fair assessment is a subjective concept and therefore involves the same ethical and attentive processes of judgment that inform our daily practice as allied health professionals (Hager, 2000). Fair assessment can be considered from the different perspectives of those who hold a stake in the outcome: the student, the university and the fieldwork educator.

From the student perspective, fairness is a key condition for any assessment. By fairness, students generally refer to a constellation that includes unbiased judgments (the educator is not prejudiced), clear performance criteria (all students are measured against the same criteria with the same expectations), equal opportunity (all students have the same level of access to learning opportunities) and assessment tools that match the learning and assessment tasks. From the university perspective, a fair assessment is one that can be used reliably (different assessors generate the same marks or decisions), is a valid measure of performance (it assesses what it sets out to assess), minimises the degree of subjective judgment required (promotes objective measures), differentiates well between levels of student performance, conforms to the university’s assessment policies and procedures, and possibly even helps meet accreditation requirements. From the fieldwork educator perspective, a fair assessment is one that manages problems related to variance in amount of exposure to learning opportunities, complexity of learning opportunities, and degree of support provided or needed in completing assessment tasks. Competency assessment that occurs in real-world situations also needs to incorporate a duty of care for the person or situation where the assessment is situated. Given the diverse perspectives of students, university and fieldwork educators and the characteristics required of assessment (Table 22.2) it is not surprising that achieving fairness in competency assessment is a dilemma. In the following section we discuss some of the issues central to achieving fair assessment: objectivity and subjectivity, judgment, validity and reliability.

Table 22.2. Characteristics of fair assessment (adapted from Hager et al., 1994)

<i>Characteristics of fair assessment</i>	<i>Examples of strategies (from COMPASS®)</i>
Does not disadvantage particular students (i.e. equitable for individuals and groups of students)	Observed performance is assessed, not how the student reached a decision on a particular course of action.
Assessment procedures and criteria for judging performance are made clear to students	Students are provided with copies of the assessment form and manual and provided with familiarisation sessions; fieldwork educators are asked to involve students in the assessment process.
Assessment procedures support learning	COMPASS® is validated on the basis of a detailed formative assessment conducted at the half-way point of every placement.
There should be a participatory approach	It is recommended to fieldwork educators that the student is involved in the assessment process and students are informed that this is the expectation. The formative assessment component supports this process.
Information and opportunities must be provided for students to challenge assessments and there must be provision for reassessment	The COMPASS® Technical Manual recommends that (a) assessments are used as part of the usual university assessment process, allowing opportunities for students to challenge assessment results, (b) COMPASS® results are interpreted in the light of all relevant information on the student's performance, and (c) students are involved in the assessment process.

## OBJECTIVITY AND SUBJECTIVITY IN ASSESSMENT

As identified in the introduction, assessment of performance in the workplace can be considered the "gold standard" for determining competency to practise (Wass et al., 2001), as opposed to decontextualised assessment strategies with unproven links to real-life performance in the workplace (Rethans et al., 2002). Workplace assessments have generally relied on subjective evaluations by supervising clinicians, self, and peer assessments. This reliance on workplace-based evaluations, often by the same person who is responsible for teaching the student(s) on a day-to-day basis, is common practice across allied health professions. Such assessments are faced with threats to validity and reliability, on the basis, for example, of their vulnerability to subjective bias (Epstein & Hundert, 2002). In particular, concern has been expressed about the use of subjective judgment in determining whether students' performances are at a particular level (Alexander, 1996; Chapman, 1998). This concern has been echoed by fieldwork educators who are concerned that their judgment is influenced by irrelevant personality factors (Duke, 1996).

*Judgment*

The concern that the subjective judgmental nature of assessment unduly affects the evaluation of students' performance is not well supported in the literature. In generalisability studies that use a matrix to examine the influence of various factors upon the scores received by the students, the judgment of raters has in fact been found to be a relatively small source of error. These studies have found that raters' or judges' behaviour generally had a much smaller effect on scores than other factors such as assessee knowledge and tasks sampled (Shavelson, Gao, & Baxter, 1993; Govaerts, van der Vleuten, & Schuwirth, 2002; Keen, Klein, & Alexander, 2003). This is in fact not surprising, given that professional judgment of client performance is central to practice; therefore fieldwork educators are typically experienced and expert at making judgments based on observed behaviours. This ability to make reliable judgments of performance is exemplified in the literature that has identified that global ratings based on qualities of performance tend to have higher reliability than specific ratings based on checklists (Cohen, Rothman, Poldre, & Ross, 1991; Govaerts et al., 2002).

We contend that judgment is both inevitable in and integral to the design and use of any valid assessment tools. Competency-based assessment of performance in the workplace does not appear to be any more disadvantaged by the need for judgment than any other assessment strategy. Ultimately, as for any assessment approach, issues related to generalisability and fairness of performance assessment must be attended to during assessment design, and the related sources of error must be controlled for and evaluated, or indeed, judged (McAllister, 2005). Strategies to do so include supporting a "rich" understanding of competence and performance (Jones, 2000). COMPASS® provides this richness through exemplars of aspects of observed performance that would identify where a student lies on the continuum from novice to entry-level on each of the competencies, as well as formative assessment strategies that are described later in this chapter.

A final consideration regarding judgment is that quality judgment of performance needs to be based on multiple observations of performance. Multiple observations underpin reliability and validity of all assessment (Schuwirth et al., 2002), but are usually the result of a number of different people (examiners) making one-off observations and judgments of the student's performance. Workplace-based integrated assessment by fieldwork educators working directly with students ensures that assessment is based on multiple observations and judgments about students' ability to learn and practise their profession. This enhances the perception of fairness, as fieldwork educators can identify whether performance is representative of a student's overall competence.

## VALIDITY

It is likely that validity of competency assessment means different things to students, fieldwork educators and university assessors. For students it might mean, "Does the assessment actually measure my competency development or is it measuring



something else like my personality or interpersonal skills?”. Fieldwork educators might question whether the assessment tool can accurately capture the range and complexity of their workplace and caseload and the competencies needed to work in the area. University assessors might be concerned with whether decisions made regarding students’ ability to progress in their university program are based on sound measurement tools that have known measurement properties and manage potential sources of bias.

The model of validity that most strongly guided our development of COMPASS® was that of Messick (1996). This model has largely replaced the previously dominant model of content, criterion-related and construct validity (American Education Research Association, 1999). Messick’s (1996) model incorporates reliability as one of six aspects of validity to be considered when designing fair assessments (Table 22.3). This ensures that reliability is not privileged at the expense of validity (Norman, van der Vleuten, & de Graaff, 1991).

The process of determining the validity of a competency assessment involves accumulating evidence to provide a sound scientific basis for the proposed score interpretations (American Education Research Association, 1999). It is the development and articulation of this scientific basis for score interpretation that promotes fairness of assessment.

*Table 22.3. Aspects of validity (based on Messick, 1996)*

<i>Aspects</i>	<i>Focus</i>
Content validity	Is the content relevant and representative of allied health competencies?
Substantive validity	Is the assessment consistent with theoretical models of competency development?
Structural validity	Does the rating scale accurately measure a range of competent performance?
Generalisability	Can the assessment results be generalised across the student’s whole performance in this placement, or even across other fieldwork placements and caseloads?
External validity	Does the assessment yield similar results to other assessments of competence?
Consequences	Are the assessment results a good basis for action (e.g. passing or failing the student)?

#### RELIABILITY

We contend that students, fieldwork educators and university assessors may share ideas about fairness in relation to reliability. Essentially they are all concerned that any fieldwork educator would assign a student similar marks or ratings. This can be seen in students’ comments that some fieldwork educators are “easy” or “hard” markers, or students’ beliefs that they would have passed a fieldwork placement or done better if they had had a different fieldwork educator.

Traditional reliability analysis focuses on identifying and quantifying the inevitable errors that occur during measurement (i.e. quantifying the inconsistency and consistency of examinee performance). It acknowledges that human performance is variable and that this will affect test scores due to a variety of factors. Factors include variations in physical and mental efficiency of the test taker, uncontrollable fluctuations in external conditions under which the assessment is undertaken (e.g. client complexity), tasks required by the assessment that may favour one individual over another, and inconsistencies in the judgment of assessors. As already mentioned, basing assessment on multiple observations by a fieldwork educator familiar with the student's usual range of performances is important. Furthermore, using a competency model that reflects the fieldwork educator's understanding of competency and provides information for guiding ratings will assist with reliability. Finally, using a scoring system that identifies and makes allowance for variability in ratings will support the reliable use of an assessment (McAllister et al., 2010). These strategies are thought to have supported the high inter-rater reliability found in the validation trials of the COMPASS®.

To summarise, notions of reliability and error of measurement are important components of the overall validity of an assessment to the extent that they contribute to an understanding of a justifiable interpretation of test scores. From a fairness perspective it is important that competency assessments have acceptable reliability for students to be confident in the feedback that the assessment provides. Acceptable reliability also allows fieldwork educators to make confident judgments of competency development.

#### AUTHENTICITY

In this section we widen the discussion of validity and defining competence to consider the notion of authenticity; that is, the extent to which we are assessing students doing the task that they will be expected to do as graduate health care professionals. As argued already, fieldwork settings provide multiple opportunities to observe the performance of students as they participate within the authentic delivery of care. Their participation might vary in the degree to which they are centrally involved in client care. Beginning students might be involved in assisting with simple tasks, and even advanced students would typically be well supported in their participation in decision making regarding client discharge (Lave & Wenger, 1991). So real-world settings provide opportunities for assessment of students across a range of complexity of performance. It is this very complexity that creates dilemmas.

The learning and assessment environment of real workplaces cannot be controlled to ensure that all students receive the same opportunities and are assessed in the same context. This has driven university programs to retreat to controlled assessments such as objective structured clinical examinations or "standardised patients" conducted in controlled environments separate from the workplace. The paradoxical effect is to sacrifice validity for reliability. Similarly students' performance needs to be evaluated relative to the complexity of their tasks, their prior learning and the complexity of the workplace. Both these issues can only be resolved by employing an ethical

and attentive judgment approach to assessment that allows for these factors to be considered during the learning and assessment process. This can be supported by provision of assessment criteria that allow for these sources of variability. For example, the description of levels of performance applied to any competency in COMPASS® (McAllister et al., 2006) requires the fieldwork educator to factor in the complexity of the client, the workplace and the student's previous experience when deciding what level of supervision is representative of intermediate or entry-level performance. Therefore a student requiring a moderate degree of supervision with a complex client would be judged as performing at a similar level to a student requiring little supervision with a client who has a simpler condition or with whom he/she has experience.

Assessments are ideally developed with close consultation and collaboration within the professional community of practice to ensure authenticity (Wenger, 1998). However, communities of practice are dynamic. Changes to practice occur at the boundaries of disciplinary expertise, raising dilemmas when defining practice to be assessed (Wenger, McDermott, & Snyder, 2002). Authentic assessments should incorporate the flexibility to reflect up-to-date practice and enable fieldwork educators to recognise a range of practice options as appropriate. Assessments based on process-oriented competencies provide flexibility by avoiding specifying particular skills and domains of practice that can change over time. As already identified in this chapter, this approach needs to be balanced against the recognition that there are core skills that students must be able to demonstrate in the workplace before graduating. However, assessments such as COMPASS® also lend themselves well to development of site-specific exemplars of each competency for each level of performance.

When assessments are not closely aligned with the expectations of the community of practice, the engagement of educators and students with the tool may lessen (Cross, Hicks, & Barwell, 2001). This lack of engagement would affect both the learning associated with assessment (Boud, 2000) and the validity and reliability of the assessment tool. Indeed, Neary (2000) found that both fieldwork educators and nursing students chose to not use an assessment tool as intended if it was perceived as irrelevant to the placement experience. Hence, authenticity is a strong influence on both perceived validity of assessment tools and reliability through correct tool usage.

There are broader sociocultural issues in communities of practice that impinge on determining a performance representative of entry-level competence. Fieldwork educators' expectations can drift over time, or they may be unwilling to identify a student's performance as entry level in case the student sees it as denoting excellence and becomes demotivated. Fieldwork educators, students and university educators may also differ in what they recognise as learning in fieldwork and university settings. Hamilton (2005) described a fundamental distinction between the expectations of the two settings, with universities expecting students to display their ability to "know what", and workplaces expecting students to show that they "know how" (Habermas, 1972). Le Maistre and Pare (2004) identified a related issue where students need to transform the object of learning assessed at university (e.g., theories of language development) into a tool to enable them to perform competently in fieldwork education placements (e.g., assessing a child with a language delay).

*Impact on Learning*

Authentic assessments have a positive impact on learning, as fieldwork educators and students value their relevance to students' future practice. But assessment usually does "double duty", both certifying students as fit to practise and at the same time attempting to support to the learning process (Boud, 2000). The dilemma here is that assessment for certification, or summative assessment, tends to exclude students from the learning process by placing responsibility for judgment about learning with fieldwork educators and/or the university (Boud, 2000). Formative assessment, on the other hand, is a process of collaborating with students to identify how they can engage in the learning required to develop competency.

Many educationalists have pointed out that all types of assessment affect learning (often described as the "backwash" or "washback" effect (Wall, 1997)), in that assessment can drive teaching, which can have positive or negative consequences. When assessment is formative in nature, it typically involves a greater degree of interaction between the educator and the learner. This interaction provides opportunities for feedback about the learner's performance (e.g. "You need to use more open questions"), and feedback about ways they can enhance their performance (e.g. "After you've completed this reading today, try practising asking open questions in a role play with me tomorrow"). This interaction provides the opportunity for an approach that may align more with the individual learner's style. For example, provision might be made for unobserved practice in non-fieldwork settings for a learner who experiences some level of performance anxiety, or a learner might suggest that the educator provide detailed feedback about particular aspects such as communication skills (McNeilis, 2001).

Summative assessment is a "snapshot" of the learner's abilities and performance at one point in time, usually at the end of the placement. This focus changes the type of feedback from assessment in important ways, and we might expect a different "washback" from the two different foci. Students who are formatively assessed are likely to critically and constructively reflect on their performance and to generate a plan for continued development. Summative assessment is often less informative for developing learning plans. It is important to keep in mind the purpose of the assessment and consider the potential impact upon students' learning behaviours. Given that fieldwork educators are concerned with learning as well as with ensuring that students are safe and effective practitioners, designers of workplace competency assessments should consider including both formative and summative components.

Assessments that describe performance as a developmental continuum provide further support to both formative and summative aspects of competency development. The developmental continuum maps the learning pathway or next steps in the process of developing competency for both the students and fieldwork educators. Identifying the end of that pathway (entry-level performance) provides students and fieldwork educators with a clear description of end goal of the fieldwork learning process.

## SUMMARY

Our students value fieldwork placements and their fieldwork educators highly. They enter our university programs with the goal of joining us in our practice.

Competency-based assessment based on observed performance of students in the real world of the workplace is highly authentic and motivating for all. As described in this chapter, this assessment practice raises a number of dilemmas, many of which are common with any kind of assessment. However, valid and reliable competency-based assessments with positive impacts upon learning can be developed through careful thought and attention to the processes and content required to support fieldwork educators' judgments and the students' learning.

## REFERENCES

- Albanese, M.A., Mejicano, G., Anderson, W.M., & Gruppen, L. (2008). Building a competency-based curriculum: The agony and the ecstasy. *Advances in Health Sciences Education*, Available: <http://www.springerlink.com/content/102840/?Content+Status=Accepted>, accessed 14 December 2009.
- Alexander, H.A. (1996). Physiotherapy student clinical education: The influence of subjective judgements on observational assessment. *Assessment & Evaluation in Higher Education*, 21(4), 357–366.
- American Educational Research Association. (1999). *Standards for educational and psychological testing*. Washington: American Educational Research Association.
- Boud, D. (2000). Sustainable assessment: Rethinking assessment for the learning society. *Studies in Continuing Education*, 22(2), 151–167.
- Chapman, J. (1998). Agonising about assessment. In D. Fish & C. Coles (Eds.), *Developing professional judgment in health care: Learning through the critical appreciation of practice* (pp. 157–181). Oxford: Butterworth-Heinemann.
- Cohen, R., Rothman, A.I., Poldre, P., & Ross, J. (1991). Validity and generalizability of global ratings in an objective structured clinical examination. *Academic Medicine*, 66(9), 545–548.
- Cross, V., Hicks, C., & Barwell, F. (2001). Exploring the gap between evidence and judgment: Using video vignettes for practice-based assessment of physiotherapy undergraduates. *Assessment & Evaluation in Higher Education*, 26(3), 189–212.
- Dalton, M., Keating, J., & Davidson, M. (2009). *Development of the assessment of physiotherapy practice (APP): A standardised and valid approach to assessment of clinical competence in physiotherapy*. (Australian Learning and Teaching Council Final report PP6-28). Brisbane: Griffith University.
- Duke, M. (1996). Clinical evaluation - difficulties experienced by sessional clinical teachers of nursing: A qualitative study. *Journal of Advanced Nursing*, 23(2), 408–414.
- Epstein, R. (2007). Assessment in medical education. *The New England Journal of Medicine*, 356(4), 387–396.
- Epstein, R.M., & Hundert, E.M. (2002). Defining and assessing professional competence. *Journal of the American Medical Association*, 287(2), 226–235.
- Ferguson, A., Lincoln, M., McAllister, L., & McAllister, S. (2008). *COMPASS® directions: Leading the integration of a competency based assessment tool in speech pathology learning and teaching*. Sydney: Australian Learning & Teaching Council Ltd, an initiative of the Australian Government Department of Education, Employment and Workplace Relations.
- Gonczi, A. (1992). *A guide to the development of competency standards for the professions*. Canberra: National Office for Overseas Skills Recognition.
- Govaerts, J.J.B., van der Vleuten, C., & Schuwirth, L.W.T. (2002). Optimising the reproducibility of a performance-based test in midwifery education. *Advances in Health Sciences Education*, 7, 133–145.
- Habermas, J. (1972). *Knowledge and human interests* (J.J. Shapiro, Trans.). London: Heinemann Educational.
- Hager, P. (2000). Know-how and workplace practical judgment. *Journal of Philosophy of Education*, 34(2), 281–296.

- Hager, P. (2004). Metaphors of workplace learning: More process, less product. *Fine Print*, 27(3), 7–10.
- Hager, P., Athanassou, J., & Gonczy, A. (1994). *Assessment technical manual*. Canberra: Australian Government Publishing Service.
- Hamilton, H. (2005). New graduate identity: Discursive mismatch. *Contemporary Nurse*, 20, 67–77.
- Hodges, B.D. (2006). Medical education and the maintenance of incompetence. *Medical Teacher*, 28(8), 690–696.
- Hott, I., & Murphy, R. (1997). Feelings and failing in professional training: The assessor's dilemma. *Assessment and Evaluation in Higher Education*, 22(3), 307–316.
- Jones, A. (2000). The place of judgment in competency-based assessment. *Journal of Vocational Education and Training*, 51(1), 145–160.
- Keen, A.J.A., Klein, S., & Alexander, D.A. (2003). Assessing the communication skills of doctors in training: Reliability and sources of error. *Advances in Health Sciences Education*, 8, 5–16.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.
- Le Maistre, C., & Pare, A. (2004). Learning in two communities: The challenge for universities and workplaces. *Journal of Workplace Learning*, 16(1–2), 44–52.
- Lincoln, M., Ferguson, A., McAllister, L., & McAllister, S. (2008). *Benchmarking clinical learning in speech pathology to support assessment, discipline standards, teaching innovation and student learning*. Sydney: Australian Learning & Teaching Council Ltd, an initiative of the Australian Government Department of Education, Employment and Workplace Relations.
- McAllister, S. (2005). *Competency based assessment of speech pathology students' performance in the workplace*. Unpublished PhD thesis, The University of Sydney, Australia.
- McAllister, S., Lincoln, M., Ferguson, A., & McAllister, L. (2004). User evaluation of the content and processes of an assessment of student performance in workplace settings. Paper presented at the IALP World Congress, Brisbane.
- McAllister, S., Lincoln, M., Ferguson, A., & McAllister, L. (2006). *COMPASS®: Competency assessment in speech pathology*. Melbourne: Speech Pathology Association of Australia Ltd.
- McAllister, S., Lincoln, M., Ferguson, A., & McAllister, L. (2010). Issues in developing valid assessments of speech pathology students' performance in the workplace. *International Journal of Language and Communication Disorders*, 45(1), 1–14.
- McNeilis, K. S. (2001). Analyzing communication competence in medical consultations. *Health Communication*, 13(1), 5–18.
- Messick, S. (1996). Validity of performance assessments. In G.W. Phillips (Ed.), *Technical issues in large-scale performance assessment* (pp. 1–18). Washington: National Center for Education Statistics.
- Neary, M. (2000). Supporting students' learning and professional development through the process of continuous assessment and mentorship. *Nurse Education Today*, 20, 463–474.
- Norman, G., van der Vleuten, C., & de Graaff, E. (1991). Pitfalls in the pursuit of objectivity: Issues of reliability. *Medical Education*, 25, 110–118.
- Rethans, J.-J., Norcini, J., Baron-Maldonado, M., Blackmore, D., Jolly, B. C., LaDuca, T., et al. (2002). The relationship between competence and performance: Implications for assessing practice performance. *Medical Education*, 36, 901–909.
- Schuwirth, L.W.T., Southgate, L.J., Page, G.G., Paget, N., Lescop, J., Lew, S.R., et al. (2002). When enough is enough: A conceptual basis for fair and defensible practice performance assessment. *Medical Education*, 36, 925–930.
- Shavelson, R.J., Gao, X., & Baxter, G. (1993). *Sampling variability in performance assessments: CSE Technical Report 361*. Santa Barbara: University of California National Center for Research on Evaluation, Standards, and Student Testing.
- Speech Pathology Association of Australia. (2001). *Competency-based occupational standards for speech pathologists (Entry level)*. Melbourne: Speech Pathology Association of Australia Ltd.
- Wall, D. (1997). Impact and washback in language testing. In C. Clapham & D. Corson (Eds.), *Encyclopedia of language and education: Language testing and assessment*, (Vol. 7., pp. 291–302). Dordrecht: Kluwer.

MCALLISTER ET AL

- Wass, V., van der Vleuten, C., Shatzer, J., & Jones, J. (2001). Assessment of clinical competence. *The Lancet*, 357, 945-949.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge: Cambridge University Press.
- Wenger, E., McDermott, R., & Snyder, W.M. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston, MA: Harvard Business School Press.

*Sue McAllister PhD*  
*Speech Pathology*  
*Flinders University of South Australia, Australia*

*Michelle Lincoln PhD*  
*Discipline of Speech Pathology*  
*The University of Sydney, Australia*

*Alison Ferguson PhD*  
*Humanities and Social Science*  
*The University of Newcastle, Australia*

*Lindy McAllister PhD*  
*School of Medicine*  
*The University of Queensland, Australia*