Overcoming inconsistencies in placement assessment: The case for developmental assessment centers

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Placements are integral to many university courses and to increasing student employability skills. Nevertheless, several complications, such as the assessment of placement experiences which often go against the principles of procedural justice, may limit placement effectiveness. For example, procedures are not applied uniformly across students; and evaluations of intangible qualities are susceptible to biases. As a result, effort and learning can be compromised. This paper advocates the use of developmental assessment centers to help solve these shortcomings. Developmental assessment centers are often used in organizations to evaluate capabilities of individuals and to facilitate development. Participants complete a series of work related and standardized tasks. Multiple raters then utilize a systematic approach to evaluate participants on a range of competencies, and consequently present constructive feedback to facilitate learning. Therefore, developmental assessment center principles match the key determinants of procedural justice and thus overcome many problems with traditional placement assessments. (*Asia-Pacific Journal of Cooperative Education, 2012(2), 65-76*)

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To develop their capabilities and experience, students in many disciplines participate in placements, in which they operate in authentic work settings. These placements, also called internships, apprenticeships, or industry-based learning, are widely acknowledged to enhance the capabilities of students—capabilities that are needed both immediately and later in their careers (Murakami, Murray, Sims & Chedzey, 2009; Pelech, Barlow, Badry & Elliot, 2009). Specifically, these placements often enable students to integrate the theories they learn in classrooms with the practical imperatives of workplaces (Bleetman & Webb, 2008). Placements have, therefore, become an increasingly ubiquitous feature of the curriculum at university in many disciplines (Coll & Zegwaard, 2006; Wilkinson, 2008).

ASSESSMENT OF PLACEMENT LEARNING

Assessment processes typically provide a critical foundation for student learning, but their use with placements has been limited and problematic for numerous reasons (Hodges, 2011). When compared to traditional academic subjects, learning derived from placements can be extremely broad, influenced by a range of contextual factors and involve an additional stakeholder, the industry partner, as an assessor (Hodges, 2011). This complexity makes the use of standardised assessment processes challenging. Unlike university learning, it has been recognised that knowledge constructed via workplace learning is unpredictable and behaviourally focused, and therefore more difficult to formally assess (Davis, Franz, & Plakalovic, 2009). As such, it could be argued that what should actually be assessed when it comes to placement learning is subject to substantial variation and requires clarification.

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Empirical research regarding standardised assessment processes for placements is still emerging; however, given the proliferation of placements, the need to adopt authentic and sustainable forms of assessment is clear (Hodges, 2011). This approach requires strong consideration of the purpose of the assessment as it relates to workplace learning. For example, student learning which relates to the preparation of becoming a professional practitioner may be more important than general student performance and content knowledge. In other words, formative (using judgements for the purposes of ongoing improvement) rather than summative (using judgements purely to provide certification of achievement) assessment methods appear more valid (Hodges, 2011; Yorke, 2005). This approach also suggests that a focus on the competencies required to be a newly graduated practitioner in their field should form the basis of any assessment. Despite such revelations, it is not clear precisely how formative approaches can be employed in this way. For example, universities for the most part are seen to rely on summative methods and overlook the potential of formative assessment (Pryor & Crossouard, 2008). This review will discuss placement assessment complexities and how these may be overcome using an approach that emulates formative assessment principles, namely, a developmental assessment center approach.

PLACEMENT ASSESSMENT LIMITATIONS

Despite their unique benefits, several complications may compromise the utility of placements. For example, the cognitive processes that underpin the benefits of placement have not been characterized definitively. Consequently, the procedures that should be applied to prepare, allocate, monitor, and coach students are not understood extensively (Coll & Zegwaard, 2006) and vary substantially across departments and institutions (Bullock, Gould, Hejmadi, & Lock, 2009).

Perhaps the most acute problem revolves around the assessment of students before, during, and after placement (see Huntington, Stephen, & Oldfield,1999). Many practitioners and scholars maintain that supervisors need to develop the capacity to assess the progress of students, offer valuable feedback, and encourage more effective reflection (Owen & Stupans, 2009; Stagnitti, Schoo, & Welch, 2010).

Placements and Procedural Justice

Unfortunately, placement assessments often violate the criteria of procedural justice. According to the seminal work of Leventhal (1980), to ensure the procedures are fair, six criteria should be fulfilled (see also Tyler, 1994). First, the procedures should be applied consistently across the students. Second, the evaluations should be immune to the personal biases, preconceptions, and interests of judges. Third, the evaluations should be derived from accurate and comprehensive information. Fourth, students should be granted the opportunity to express concerns about the procedures, called voice. Fifth, the specific needs and values, including the cultural preferences, of all affected parties should be considered and accommodated. Finally, the procedures should comply with established ethical and moral codes. The first column of Table 1 lists these principles.

Assessments of placements seem to breach most, if not all, of these criteria, as summarized in the second column of Table 1. First, because students do not all work at the same organization or on the same task, each individual is subjected to different obstacles and complications (Owen & Stupans, 2009). Some students, for example, may not be able to fulfill

their deadlines, merely because the instructions are ambiguous or the demands are unreasonable. The procedures, therefore, are not applied consistently across the students.

TABLE 1.
Association between the principles of justice and traditional placement assessments, formative assessment, and developmental assessment centers

Principle of Justice	Drawbacks of Assessments in Placements	Benefits of Formative Assessment	Benefits of Developmental Assessment Centers
Procedural Justice			
Consistent application of procedures	Variations across roles & companies	NA	Systematic recording and integration of data
Impervious to personal biases	Intangible attributes are sensitive to bias	NA	Multiple raters reduce effect of personal bias
Derived from accurate information	Some of the learning will not be tested	NA	Multiple tasks assess each competency
Opportunity to voice concerns	NA	Teachers tend to trust student feedback	
Respect the values of all parties	Workplace directives neglect student needs	NA	Cultural sensitivities are accommodated
Compliance with ethical code	Businesses may not align to university ethics	NA	More useful skills are imparted to students
Interactional Justice			
Interpersonal respect, proprietary	NA	Ideas are exchanged rather than imposed	NA
Timely and thorough information	NA	Feedback is regular and ongoing	NA

Second, in the workplace, evaluators need to assess vital but intangible qualities, such as professionalism, interpersonal skills, and communication skills (Coll & Zegwaard, 2006). The evaluation of these attributes are subjective and thus particularly susceptible to biases and preconceptions; for example, when attributes are intangible, supervisors tend to be more lenient towards students they like (Antonioni & Park, 2001). Third, attempts to override these inconsistencies or biases with standardized procedures, such as tests of knowledge, are often ineffective: because each placement is unique and unpredictable, these standardized

procedures will often overlook some of the insights and lessons that students have acquired, compromising the accuracy of these assessments.

Furthermore, the participation of industry partners can also provoke a series of complications that compromise procedural justice. Workplaces need to fulfill commercial imperatives or other objectives, fostering practices and procedures that conflict with the needs of students and universities (Caballero & Walker, 2010). Because these practices and procedures must satisfy the demands of diverse stakeholders—including directors, managers, peak bodies, shareholders, and customers—the preferences of students cannot always be accommodated. In addition, these imperatives of workplaces might diverge from the moral or ethical codes of universities and regulatory bodies (Caballero & Walker, 2010; Owen & Stupans, 2009).

Implications of Procedural Injustice

When the assessments of placements are unjust, a raft of problems are likely to unfold (for a review, see Skitka & Crosby, 2003). If the procedures are perceived as unfair, individuals do not feel their efforts will be recognized, rewarded, or beneficial (Cropanzano, Byrne, Bobocel, & Rupp, 2001). They are, consequently, not as likely to devote considerable effort to their work (Laurin, Fitzsimons, & Kay, 2011). As this effort wanes, memory, learning, and development tend to subside (for underlying cognitive mechanisms, see Bjork & Bjork, 1992).

Furthermore, if the procedures are unjust, individuals are not as likely to feel a sense of loyalty to the university or workplace. According to relational models of procedural injustice (Tyler & Blader, 2003), such injustices are often interpreted as signals that individuals are not respected or valued by the organization. Consequently, the students may withdraw their commitment from either the university or the workplace, also impairing effort and learning (Tyler & Blader, 2003).

Besides impaired learning, these injustices can also compromise the wellbeing of students. When the assessments are unjust, students do not feel a sense of control, provoking strain and anxiety (Fox, Spector, & Miles, 2001). Similarly, according to the fairness heuristic, if the assessments are unjust, students tend to perceive the various stakeholders, including supervisors or lecturers, as untrustworthy (Cropanzano et al., 2001). They may abstain from seeking the guidance of these individuals, exacerbating their strain.

BENEFITS OF FORMATIVE ASSESSMENT

Scholars and practitioners have introduced a variety of strategies and approaches to enhance the placement experience, partly offsetting some of the consequences of unjust procedures. Many experts, for example, maintain that universities should implement measures to integrate classroom learning with work experiences. Teachers should encourage students to plan their tasks and goals more as well as reflect upon their experiences at placement systematically and constructively—practices that are not common today (e.g., Owen & Stupans, 2009).

These recommendations, although significant, do not actually overcome the injustices of assessments. To promote justice and maximize placement outcomes, formative assessment, advocated by many academics and practitioners in education (e.g., Niven & Meyer, 2007), may be beneficial.

Formative assessment—also called assessment for learning or learning-oriented assessment—represents a departure from the traditional approach, summative assessment, in which individuals receive grades and marks at the end of a topic, unit, or course (Pryor & Crossouard, 2008). When formative assessment is introduced, students receive ongoing evaluations and feedback (Chappuis & Chappuis, 2008), intended to clarify the learning needs of students. Once these learning needs are clarified, students tend to become more receptive to feedback and advice (Mayes, 1997).

Thus, rather than conceptualize assessment as an appraisal of ability, these evaluations are regarded as a means to facilitate learning and reflection in students (Webb, 2010). Indeed, as surveys have shown, students on placement regard deliberate and systematic reflection as integral to the learning process (Crebert, Bates, Bell, Patrick, & Cragnolini, 2004). This reflection enables individuals to construct differentiated mental models and thus to optimize their future responses to work problems (Maclellan, 2004).

Although still relatively uncommon (Elwood, 2006; Hume & Coll, 2009), formative assessment has been shown to provide many benefits to students and teachers. For example, formative assessment seems to expedite the development of capabilities that predict career success in the future, such as self regulation, self efficacy, and lifelong learning skills (Chow, 2010; Thomas, 2009; Yorke, 2005). Furthermore, this approach enables teachers to adapt their approach and accommodate the needs of learners (Heritage & Bailey, 2006).

Formative Assessment and Justice

In the context of placement, formative assessment may also circumvent some prevailing injustices, as summarized in the third column of Table 1. Summative assessment is primarily applied to rank and grade students. These ranks or grades affect the employability of students as well as their eligibility for grants or other rewards. The complaints of students are, therefore, often treated with skepticism. In contrast, formative assessment is primarily applied to uncover constructive, meaningful, and inspiring feedback (e.g., Elwood, 2006; Webb, 2010). That is, teachers offer guidance and support that enable students to redress their weaknesses, utilize their strengths, and formulate realistic learning outcomes. The concerns that students express about the assessment are not as likely to be motivated by personal interest and, therefore, may not be treated with skepticism, fulfilling the principle of voice.

As scholars have recently emphasized, just procedures do not always translate into fair treatment. The procedures may be impartial, but the treatment of students may nevertheless be unsuitable, creating interactional injustice (Bies & Moag, 1986). To illustrate, teachers may communicate with a condescending tone or withhold feedback, evoking strain and compromising engagement (Skarlicki & Folger, 1997). Fortunately, when formative assessment is adopted, the two key facets of interactional justice—interpersonal justice and informational justice (Colquitt, 2001)—also tend to be fulfilled.

To demonstrate, when formative assessment rather than summative assessment is applied, teachers do not merely impose a grade on students. Instead, this approach affords teachers and students opportunities to exchange insights and to identify the learning goals jointly and collaboratively (Clark, 2008; Elwood, 2006; Kirton, Hallam, Peffers, Robertson & Stobart, 2007). The students, therefore, are more likely to feel they have been treated with respect, propriety and honesty—the defining features of interpersonal justice. Furthermore, these

discussions enable teachers to offer timely and thorough feedback and to explain their conclusions (Chappuis & Chappuis, 2008; Deeprose & Armitage, 2004), fulfilling the criteria of informational justice.

ROLE OF DEVELOPMENTAL ASSESSMENT CENTERS

Despite the benefits of formative assessment, this approach does not necessarily fulfill all the hallmarks of procedural justice. Procedures may not be applied consistently across students; evaluations are not necessarily impervious to the biases of teachers; the assessments might be derived from inaccurate or incomplete information; voice is limited; and ethical or moral considerations are not always addressed.

Developmental assessment centers, a variant of assessment centers—an approach that has been applied for over 50 years in the realm of human resources and organizational psychology (Lievens, 2001)—could resolve these shortfalls. Assessment centers represent an approach, instead of a specific location, in which participants complete a series of standardized tasks to gauge their performance on competencies that are integral to career success. Individuals may, for example, need to respond to a series of emails, memos, letters, or reports, prioritizing the various tasks appropriately and solving a diversity of problems (Coulton & Feild, 2001). Alternatively, they might have to participate in a simulated meeting with an individual or group, attempting to solve a specific issue. The performance on a range of competencies that are germane to success in the workplace, such as communication skills or leadership, is evaluated.

Developmental Assessment Centers and Procedural Justice

In contrast to other assessment centers, which are primarily utilized to select suitable applicants, developmental assessment centers are implemented to facilitate learning and development but are otherwise identical (Woodruffe, 2007). Furthermore, developmental assessment centers entail the traditional features of formative assessment—a focus on development and feedback, for example—as well as five other key principles (cf., Howard, 1997). These key principles, importantly, align with the criteria of procedural justice that formative assessment might not always fulfill.

First, raters need to apply a systematic procedure to evaluate the behavior of participants (Howard, 1997; Lievens, 2001). Furthermore, standardized techniques are applied to integrate this information and thus to rate competencies (Spychalski, Quinones, Gaugler & Pohley, 1997; Woodruffe, 2007). For example, in both dyadic and group interactions, the number of times that individuals direct the conservation could represent one index of leadership. This index, together with other measures of leadership, may then be weighted and averaged to form a single rating of this competency. These systematic procedures fulfill the first criteria of procedural justice: the procedures are applied consistently across students.

Second, in development centers, multiple raters, all trained to apply these procedures effectively, are engaged to evaluate the participants (Coulton & Feild, 2001; Lievens, 2001). This provision is intended to assess, as well as to curtail, the effect of biases or preconceptions on ratings of participants (Woodruffe, 2007). If the personal biases or preconceptions of raters distort their evaluations, these judges will often report divergent ratings. In these instances, the raters will then need to refine their methods. They may, for instance, integrate their ratings with other sources of information, curbing the sensitivity of

evaluations to biases. The second criteria of procedural justice—immunity to bias—is more likely to be fulfilled.

Third, evaluations of participants on each competency, such as leadership, are usually derived from multiple exercises (Coulton & Feild, 2001; Spychalski et al., 1997). If students falter on one task, merely because the activity revolves around a topic with which they are not familiar, they might, nevertheless, prevail in another exercise. Evaluations of these competencies, therefore, are not as sensitive to extraneous complications and are thus more reliable and accurate, consistent with the third criteria of procedural justice. In addition, each of these exercises typically simulates authentic work tasks, further increasing their validity.

Fourth, according to many proponents of assessment centers, practitioners need to ensure the exercises are validated across many cultures and contexts. The topics and language, for example, should not disadvantage individuals from specific communities (Briscoe, 1997). Sensitivity to the needs of different constituencies, therefore, is a key principle of development and assessment centers. In addition, developmental assessment centers, administered before a placement, can uncover the strengths and limitations of each student. Teachers and supervisors can then adapt the placement to accommodate these attributes, ensuring the needs of each student are respected.

Finally, rather than merely assess tangible knowledge, developmental assessment centers are usually applied to evaluate more generic, enduring, and consequential competencies (Howard, 1997; Riggio, Aguirre, Mayes, Belloli & Kubiak, 1997)—competencies that can facilitate success throughout the entire career of individuals (Coulton & Feild, 2001). These competencies are derived from job analysis (Coulton & Feild, 2001), which is a technique used to uncover competencies relevant to a particular profession or job. Traditionally, universities have evaluated explicit knowledge, such as theories or taxonomies that were taught. Developmental assessment centers, in contrast, tend to assess tacit capabilities, including communication, resilience, problem solving, and strategic thinking (Howard, 1997).

These capacities are vital not only to graduate positions but to future employment as well. In particular, since the 1970s and in the aftermath of changes to the regulation of international trade, companies have become more likely to modify their operations dramatically (Sennett, 2006). Improvements in communication technology have amplified this flux. Consequently, the roles of employees change frequently and erratically (Sennett, 2006). Knowledge that is valuable at one time might become futile years later. In contrast, more enduring capabilities, such as resilience and problem solving, are pertinent to all environments and thus enable employees to respond flexibly to unexpected demands (Bridgstock, 2009). Employers are thus increasingly seeking capacities that transcend specific disciplines (Caballero & Walker, 2010; Graduate Careers Australia, 2008).

From this perspective, when developmental assessment centers are used, students are more inclined to orient their attention to qualities that are pertinent and beneficial to their future career. In contrast, if traditional approaches are utilized, students may acquire knowledge, such as technical knowledge, or skills that soon become obsolete.

Relative to developmental assessment centers, traditional approaches to assessment, therefore, are more likely to fulfill the imperatives of universities, perhaps by saving money (Riggio, Mayes, & Schleicher, 2003), often to the detriment of student wellbeing and success. They may not always impart the skills that are vital to career success in the future, such as

networking skills, professional conduct, or social competence (e.g., O'Connor, Cecil & Boudioni, 2009). In this sense, traditional models violate standard ethical codes, impeding the sixth criteria of procedural justice. According to the Code of Ethics that is published by the Australian Psychological Society, for example, the welfare of clients should be prioritized over the interests of professionals—a principle that may violated by traditional methods of assessment.

Empirical Support for Developmental Assessment Centers

Limited research has examined the benefits of developmental assessment centers in the context of placements. Many studies, however, have examined the merits of developmental assessment centers in the work rather than university context. This research has shown that such an approach can facilitate motivation, skill development, and ultimately, performance (e.g., Boehm, 1985; Engelbrecht & Fischer, 1995; Howard, 1997; Mayes, 1997; Woodruffe, 2007).

One study, conducted by Extejt and Forbes (1996), investigated the benefits of developmental assessment centers in the university environment. Undergraduate business students completed a program on management development. Only a portion of these students, however, also participated in a developmental assessment center. Skill acquisition was more pronounced in the students who had received feedback from the developmental assessment center. This study, however, examined the merits of developmental assessment centers in a classroom environment and not at placement.

There is some research which has established the merits of developmental assessment centers over traditional approaches in placements. One of these studies was conducted by Kottke and Shultz (1997). They introduced a developmental assessment center to organizational psychology students as a requirement to a practicum course. Nevertheless, student progress was not monitored throughout the placement and no ongoing feedback about the core competencies was offered. This developmental assessment center, therefore, did not utilize the principles of formative assessment.

One recent study, reported by Keele, Sturre, von Treuer, and Feenstra (2010), circumvented this limitation. This study piloted the use of a developmental assessment center to identify learning needs and goals as well as to facilitate planning and preparation before a placement. In addition, ongoing feedback about progress on these learning goals was provided after each placement. Initial results indicate the pilot was effective, facilitating learning and increasing satisfaction. However, the sample was small, and hence the results are not definitive.

Limitations of Developmental Assessment Centers

Although numerous benefits of using developmental assessment centers have been discussed, it is important to be cognizant of potential limitations. Perhaps the most widely noted criticism is that their design and implementation can be resource-intensive (Coulton & Feild, 2001; von Emmerik, Bakker & Euwema, 2008; Kottke & Shultz, 1997; Mayes, 1997; Riggio et al., 2003). The reason for this expense is factors such as the need for assessor training and the use of multiple assessors, the time involved in designing and conducting the centers themselves, and provision of feedback. The success of a center is highly dependent on the quality of these areas, so it is critical to ensure these elements are not compromised

(Kottke & Shultz, 1997). To address this factor, improvements in technology such as access to video taping and computer simulations may be worthy of consideration to gain efficiencies. Regardless, it has been acknowledged that the outcomes from developmental assessment centers outweigh this expense (Coulton & Feild, 2001; Kottke & Shultz, 1997; Riggio et al., 2003). When considering the expense of the process, the benefits must be considered alongside the potential losses that might be prevented (Coulton & Feild, 2001). For example, the high cost might be offset by the gains made by obtaining valuable data on ideas for curriculum improvement, directly enhancing student employability and so forth (Riggio et al., 2003).

CONCLUSION

The placement experience, although a valuable learning tool and integral to the skill development of students, would benefit from improvements in assessment. Specifically, the assessment of placement is likely to violate the principles of procedural justice and may, at times, breach the principles of interactional justice as well. Formative assessments, if coupled with developmental assessment centers, are likely to redress these concerns and promote justice, ultimately facilitating effort, learning, and wellbeing. In addition to ensuring justice, this approach shifts attention from merely the acquisition of technical knowledge to the development of tacit competencies—competencies that enhance the immediate and future employability of students. Although further research is needed to verify the utility of developmental assessment centers across many contexts, past studies into the importance of procedural justice and self awareness imply this approach is likely to enhance the motivation, confidence, and capacity of students to develop their skills and competence.

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In this Journal, Co-op/WIL is defined as an educational approach that uses relevant work-based projects that form an integrated and assessed part of an academic program of study (e.g., work placements, internships, practicum). These programs should have clear linkages with, or add to, the knowledge and skill base of the academic program. These programs can be described by a variety of names, such as work-based learning, workplace learning, professional training, industry-based learning, engaged industry learning, career and technical education, internships, experiential education, experiential learning, vocational education and training, fieldwork education, and service learning.

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