

## 360 degree feedback: an integrative framework for learning and assessment

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Feedback is widely acknowledged as the crux of a learning process. Multiplicities of research studies have been advanced to address the common *cri de coeur* of teachers and students for a constructive and effective feedback mechanism in the current higher educational settings. Nevertheless, existing pedagogical approaches in feedback are fragmented and ad hoc in nature. Taken in isolation, each approach fails to capture the full role and complexity of assessment feedback in the learning process. The paper provides a synthesis of existing practices in the field of assessment feedback and identifies the core guiding elements to develop a holistic and integrated feedback system. The 360 degree (360°) feedback system is proposed and its systematic implementation is demonstrated via the interplay between self-, peer and teacher assessment. It is concluded that the elements of 360° system when combined and integrated help to maximise the functions of feedback to enhance learning.

**Keywords:** 360° feedback system; integrative framework; assessment; teaching; learning

### 1. Introduction

Assessment feedback is critical scaffolding in the development of quality teaching and effective learning in all educational settings (Black and William 1998; Carless et al. 2011; Feys, Anseel, and Wille 2011; Price, Handley, and Millar 2011). Yet it remains the least satisfactory constituent in the teaching and learning experience as evidenced by several national surveys on student and course experience, such as the UK National Student Survey (HEFCE 2011) and Australian Course Experience Questionnaire. The surveys reveal a number of factors underlying the dissatisfaction. Students are often dissatisfied with the value and effectiveness of assessment feedback they receive, in terms of specificity and opportunity for improvement, difficulty in comprehension and discouraging impact on students' self-perception and confidence (Carless 2006). Additionally, teachers view it as an enormous drain on their time and effort to craft useful feedback in a timely manner. This is especially so when students do not read and reflect upon it. The frustration of teachers intensifies when workload increases as student numbers increase and class sizes become larger (Nicol and Macfarlane-Dick 2006). Furthermore, strategies, debates and policies have been criticised for concentrating on assessment feedback as an end product rather than a means in enhancing learning experience. Despite the emergence

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of student-centred learning as the significant pedagogy in contemporary educational settings, a parallel shift to student-centred formative assessment and feedback has been slower to emerge (Nicol and Macfarlane-Dick 2006). Assessment feedback is still generally perceived as a process of information transmission dominated mainly by teachers (Nicol and Macfarlane-Dick 2006). The top-down and one-way transmission of feedback is perceived as barrier for student-centred learning as it ignores the way feedback interacts with motivation and beliefs.

Although an increasingly varied range of pedagogical approaches have been devised to improve the current practices in assessment feedback, Fraser et al. (1987, 149) criticise that ‘much educational research focuses on the relation between a single cause and its effect’. This disregards the fact that education embraces diverse means and ends, each with an explicit or implicit cost or value (Fraser et al. 1987), and ad hoc and fragmented initiatives can only have a marginal effect on learning. This has led to a call for holistic pedagogic interventions across a range of contexts (Yorke 2003). In this paper, we propose a feedback system in a holistic manner as a mechanism of overcoming ad hoc and piecemeal approaches to feedback. Specifically, we extend existing research on assessment feedback by addressing two aims:

- (1) Identify the elements underpinning the holistic feedback system to enhance students’ learning.
- (2) Demonstrate a holistic feedback system that showcases the interplay between self-, peer and teacher assessment.

## **2. A holistic approach to assessment feedback: the 360 degree feedback system**

The era of assessment in higher education is in transition from ‘assessment *of* learning (aka summative assessment)’ to ‘assessment *for* learning (aka formative assessment)’. The era of ‘assessment *of* learning’ can be characterised by the dominance of teacher-led assessment and by measuring learning outcomes, solely at the end of a learning process in the form of a single total score (Dochy, Segers, and Sluijsmans 1999; Fallows and Chandramohan 2001; Gielen et al. 2011). It has been perceived as an authoritarian system involving unilateral intellectual authority by teachers and disengaging students in every stage of learning (Falchikov 1986).

Following the evolution in assessment practices, the emerging trend of ‘assessment *for* learning’ emphasises a pluralist approach in learning. This approach promotes integration of assessment and feedback and engages student as an active learner who assumes responsibility, reflects, collaborates and communicates dialogically and continually with teacher (Dochy, Segers, and Sluijsmans 1999). In parallel with the fundamental changes in the goals of assessment, the approaches to assessment need to be in harmony. Sadler (1989) warns that many principles appropriate to ‘assessment *of* learning’ are tangential to ‘assessment *for* learning’. The need to diversify mainstream forms of assessment feedback has long been recognised as a tenable claim, but the direction and forms of emerging assessment practices have been slow in crystallisation (Hatzipanagos and Rochon 2010; Sadler 1989, 1998).

In line with the pluralist approach (Dochy, Segers, and Sluijsmans 1999), an integrated mechanism is required to manage the complexity of assessment demands. Increasingly, attention is being given to the value of feedback and ‘assessment *for* learning’ as a means of dealing with this complexity (Cartney 2010). A wide body of

research identifies self-assessment (Fazey 1993; Sadler 1989) and peer assessment (Boud, Cohen, and Sampson 1999; Brutus and Donia 2010; Cartney 2010; Fry 1990; Gielen et al. 2011) in addition to teacher assessment as ways to enhance the experience of teaching and learning. Unfortunately, there remains at present considerable incoherence in the implementation of these initiatives as well as continued emphasis on ‘assessment of learning’. Research continues to focus on aspects of marking or grading (Boud 1989; Falchikov 1986), developing relevant skills and criteria in marking and evaluation (Fazey 1993; Orsmond, Merry, and Reiling 2002; Sadler 1989) and investigating students’ attitudes towards non-traditional feedback approaches of self- and peer assessments (Fry 1990).

Additionally, most extant research tackles self-, peer and teacher assessments separately and neglects the potential effect these can generate when used in combination. There remains a significant gap in research on how to integrate multiple approaches to create coherent and integrated feedback for enhanced learning. This provides the underlying rationale for this paper’s aim to develop an integrated framework towards a holistic feedback system. The concept of 360 degree (360°) feedback in human resource management (HRM) as an effective multi-directional assessment inventory of employees’ performance (Nowack 1993) prompted us to the development of the system in educational context. In HRM, performance feedback on employees is sought from colleagues, superiors, subordinates and customers. It is believed to be a highly effective performance evaluation tool, commonly used in organisations (Mabey 2001; Nowack 1993). Consistent with the multi-rater approach in HRM, feedback in learning is sought from peers and teachers. The system is organised around the core elements identified by integrating self-, peer and teacher assessments.

### 3. Core elements of the 360° feedback system

The limitations of feedback are well rehearsed in the literature (Black and William 1998; Dochy, Segers, and Sluijsmans 1999; Gibbs and Simpson 2004; Nicol and Macfarlane-Dick 2006; Yorke 2003). Most of the literature concentrates on the issues associated with effectiveness and efficiency of the feedback process and methods. As highlighted earlier, timeliness and frequency of feedback, clarity of feedback contents, and relevance of feedback in learning are the common problems with current higher educational settings. The widespread frustration and dissatisfaction with feedback process and methods necessitates the need for improvement.

A good feedback system is not a single discrete activity but encompassed by a bundle of elements and practices. Moreover, attempts to tinker with feedback elements independently in a piecemeal manner are likely to be insufficient. We review the ‘best’ practices as the starting point to chart a way forward in enhancing feedback effectiveness. Drawing together the relatively diverse research findings on assessment feedback, we identify six primary elements that support teaching and learning and incorporate these in the 360° feedback system (Figure 1). The six elements are timing, quality, quantity, social pressure, reflection and communication. These elements are neither mutually exclusive nor independent. An effective system enables these elements to function intertwiningly to maximise the potential of feedback for learning. The following discussion explains how these elements work to produce the desired set of outcomes.



Figure 1. Core elements of 360° feedback system.

### 3.1. *Timing*

The element of time in feedback process concerns the characteristics of prompt and regular feedback on learning. Good teaching practice emphasises prompt feedback (Chickering and Gamson 1987; Freeman and Lewis 1998). The greater the delay, the less likely students will find it useful or incline to act on it. For feedback to be timely and effective, it is imperative for students to start the process early, which then allows teachers sufficient time to provide feedback. In turn, this allows students sufficient time to act upon the feedback received. However, in practice, most students are inclined to commence their work only when pressed by fast approaching deadlines, let alone seek feedback for better learning outcomes. The possible repercussion of such a proclivity is that students tend to emphasise a product approach in learning rather than on the process of achieving learning gains (Beaumont, O’Doherty, and Shannon 2011; Carless 2002). From the perspective of this study, the time-dependent nature of feedback activities requires reconceptualising feedback from post hoc feedback into prompt and regular dialogue about learning that enhances the performance quality (Beaumont, O’Doherty, and Shannon 2011).

### 3.2. *Quality*

Considerable research in the area of assessment feedback is on the quality of feedback content (Feys, Anseel, and Wille 2011; Sadler 1998). Whilst high quality of feedback content remains the uncontested *raison d’être* of ‘assessment for learning’, we emphasise the quality of feedback process that engages all stakeholders particularly students in teaching and learning. Learning is achieved through quality of student engagement in learning tasks, not teachers doing lots of marking or students spending hours reproducing what they have memorised (Gibbs and Simpson 2004).

The term ‘engagement’ is not universally agreed upon in definition. There is however a general consensus that ‘student engagement is a process rather than a product’ (McFadden and Munns 2002, 362). Most researchers take the position that, pedagogical

tactics and strategies that actively engage students in learning activities yield greatest gains in educational and personal growth (Bryson and Hand 2007).

Drawing on the socially embedded conceptualisation of engagement reveals that engagement is influenced by individual and contextual factors, such as relationships between students, peers and teachers (Bryson and Hand 2007; Price, Handley, and Millar 2011). It is generally acknowledged that influence of class hours on educational quality is minimal, what matters more in getting learning gains is the ‘close contact’ between teachers and students in and out of classes (Gibbs 2010). Students demonstrate strong intellectual commitment when frequent contact with teachers helps to motivate and engage them to think about the learning values (Chickering and Gamson 1987). Similarly, working with peers in a collaborative and collegiate manner enhances engagement in learning (Chickering and Gamson 1987).

Engagement can also be enhanced using strategies such as allowing refinement of work following feedback or using peer review for feedback prior to finalisation of work (Price, Handley, and Millar 2011).

### **3.3. *Quantity***

Resource constraints facing higher learning institutions have led to a decline in the frequency of assignments and in the quantity and quality of feedback (Gibbs and Simpson 2004). However, as class sizes have increased due to mass education, teachers remain under enormous time pressure and workload to provide written feedback. Pessimistically, under such a predicament, the choice is either to maintain ‘quality’ or increase ‘quantity’. It is either ‘quality’ gives way to ‘quantity’ or ‘quantity’ makes way for ‘quality’. We take the view that whilst both quality and quantity of feedback have overwhelming influence on learning, quantity should not increase the already heavy workload of teachers in marking.

Significant feedback is useful in supporting learning if it is provided often enough and on a relatively small chunk of course content rather than one piece of detailed feedback after the end of a course (Gibbs and Simpson 2004). Students should receive feedback in regular intervals to enhance the quality of their work. The final work with higher quality ultimately eases the workload of teachers in providing lengthy and sometimes unpleasant written feedback at the end of the assessment.

### **3.4. *Social pressure***

Past research reveals that social pressure from a group exerts strong influence on individual member’s behaviour (Gibbs and Simpson 2004; Johnson and Johnson 2009). However, scant investigation has been directed towards understanding the possible role of social pressure in complex cognitive processes such as learning (Allen and Bragg 1968).

Drawing upon social interdependence theory, it is contended that positive social interdependence binds group members together and results in feelings of responsibility in (1) completing one’s share of work and (2) facilitating the work of other group members in order to uphold the individuals and group’s welfare (Johnson and Johnson 2009). Responsibility forces are strengthened when there is group and individual accountability (Johnson and Johnson 2009).

Although most research emphasises the effect of social pressure derived from the conformity of group norms and beliefs (Allen and Bragg 1968), it is formulated as social

interdependence to promote the achievement of mutual goals of the group and individual in this study. Specifically, the primary responsibility of a group is to ‘provide support, encouragement, and assistance to make academic progress and develop cognitively and socially in healthy ways as well as holding each other accountable for striving to learn’ (Johnson and Johnson 2009, 374). Research suggests that cooperative learning methods are generally superior to competitive and individualistic methods in student achievement (Crooks 1988) although some researchers disagree with the conclusion (Cotton and Cook 1982). One key factor for social pressure to work constructively is the composition and social cohesion of group members. Norms developed in a peer group, as well as group size, have an influential role in social cohesion. Small group with shared norms tends to demonstrate stronger social cohesion and higher level of engagement (Ahlfeldt, Mehta, and Sellnow 2005).

Student sense of responsibility to others and their cooperation in learning derived from social pressure helps to change the way students learn (Gibbs 1999). We view social pressure at its optimum level as a constructive driver of student engagement within the teaching and learning process.

### **3.5. Reflection**

One of the main functions of feedback is to ‘promote meta-cognition by encouraging students’ reflection and awareness of learning processes involved in the assignment’ (Gibbs and Simpson 2004, 20). Self-assessment is perceived as an effective way that encourages reflection on the learning process and allows students better control over their learning strategies (Dochy, Segers, and Sluijsmans 1999; Nicol and Macfarlane-Dick 2006). All self-assessments involve reflection, although not all reflections lead to self-assessment. Despite the fact that self-assessment by students is rare, delegation of assessment responsibility to students is a *sine qua non* for effective learning (Black and William 1998).

In order to facilitate opportunity for reflection, it is logically important to engage students in identifying performance standards or criteria related to their work and benchmarking their work to these standards (Nicol and Macfarlane-Dick 2006). Furthermore, peer assessment should be incorporated to support the development of self-reflection skills as it provides opportunity to make objective judgements against standards and engage in evaluation of works other than their own (Dochy, Segers, and Sluijsmans 1999; Nicol and Macfarlane-Dick 2006; Sadler 1983). The introduction of peer assessment helps students to gain better understanding of the criteria upon which their work is evaluated (Higgins, Hartley, and Skelton 2002). In addition, self-assessment in relation to exemplars such as the work produced by peers enriches the profundity of reflection. If self-reflection has any validity, students are able to make sound evaluation of works of the same genre they themselves are trying to produce (Sadler 1983). Self-assessment and peer assessment are juxtaposition of engagement in self-reflection.

### **3.6. Communication**

Feedback is by no means a unidirectional transmission of knowledge (Price, Handley, and Millar 2011; Sadler 1998). Rather, it is a communication process (Higgins, Hartley, and Skelton 2001) in a broad sense that involves transmission of information between the senders and recipients. The encoding of feedback comments by senders and the decoding

of feedback by recipients are influenced by the interaction of both parties as well as the environment and context of feedback, where there is likely to be a certain amount of 'noise' that will distort the intended meaning of the message (Higgins, Hartley, and Skelton 2001; Price, Handley, and Millar 2011). The fundamental problem in assessment feedback is the failure to recognise the complexity of assessment feedback as a unique form of communication (Higgins, Hartley, and Skelton 2001). The conventional model of communication in the context of higher education takes the form of linear transfer of information from a sender (teacher) of message to a recipient (student) via a medium (Higgins, Hartley, and Skelton 2001). The conventional mode of communication does not only entail the problem of unilateral and top-down mode of communication but also implies the problem of power relationship between both parties. Moreover, students who are in the receiving end of feedback do not have opportunity to participate actively in feedback process.

Our position reinforces the need to move away from the conventional model of feedback communication, in favour of dialogical, interactive and regular exchanges of information in which students and teachers are jointly involved (Carless et al. 2011).

#### **4. Implementation of the 360° feedback system**

Our orientation towards the idea of 360° feedback system is rooted in the strong confidence expressed by extant literature on the shift towards a multi-faceted formative assessment approach (Boud 1990; Falchikov 1986; Jenkins 2010). The system as a whole adds value, beyond that of independent methods, primarily by emphasising the coherent relationship among the interrelated methods. In essence, the system constitutes a set of interconnected assessment methods, i.e. self-, peer and teacher assessments functioning together under the guidance of positive feedback elements with a common objective to enhance students' learning.

We devised and implemented 360° feedback system within a taught unit in management discipline at undergraduate course level. We focused on the assignment component in its implementation, as research evidence informed that higher quality of learning occurs in the assignment component (Gibbs and Simpson 2004). The implementation process composes of three main stages in its operation namely pre-task guidance, in-task guidance and post-task guidance.

First, in the stage of pre-task guidance, introductory briefing about the purpose and operation of 360° feedback system was conducted at the start of the semester. Following from the preliminaries, the system commenced its process by allocating weekly tutorials to various aspects of assignment preparation. This was intended to capture students' time and effort in learning by distributing the assignment preparation across the course. At the preparatory stage, students conducted preliminary research on relevant literature and organised them into a coherent way before presenting it to class in the form of poster presentation. Poster presentations were scheduled at least 2 weeks before the deadline of assignment submission and hence enabled students to receive feedback and refine their work before full submission of the written assignments.

Next, during the stage of in-task guidance, feedback on each of the poster was sought from students, peers and the teacher. Self- and peer evaluations took the form of formative assessment. Teacher evaluation took the form of formative and summative assessments. The integration of cooperative assessment with formative and summative was to facilitate students' active engagement in assessing themselves and their peers whilst allowing

teacher to maintain the necessary control over the final assessment (Dochy, Segers, and Sluijsmans 1999). Based on the feedback received, students revised their work for final submission.

Finally, in the stage of post-task guidance, the graded reports were returned to students with grades and feedback provided by teacher.

#### ***4.1. Implementation factors***

We distill out the learning points arising from this exercise as key factors for successful implementation in terms of instituting a systematic feedback process, encouraging active student engagement, providing staged feedback, and planning and monitoring group progress and dynamic in learning.

##### *4.1.1. Institute a systematic process approach*

In order to capture the time-dependent nature of feedback, the 360° feedback system is designed to schedule its feedback process into three highly systematic and sequential stages. This requires an intervention task that initiates the feedback process. An effective feedback intervention is critical to maximally increase engagement from all parties.

Interventions can be varied. From among the many, we suggest the use of poster presentation as an easy yet comprehensive means for providing meaningful formative feedback (Orsmond, Merry, and Reiling 2002). Preparatory guidance needs to be scheduled well ahead of the full submission deadline. This will encourage students to start preparation work early. At the in-task guidance stage, students begin to participate in 360° feedback system by requiring them to solicit face-to-face feedback from multi-sources (teacher, peer and self-reflection).

Based on the initial feedback to the intervention, students are required to improve on their drafts. During this in-task guidance stage, progress and remedial feedback via face-to-face consultation with teacher and peers can be gained. This aids the process of self-reflection. In the wrap-up stage, written submission is graded and feedback on the overall performance is provided in written format by teacher. In order to engage a student to act upon the post-submission feedback, it is important for the feedback to be forward-looking which connects the relevance of the current experience with the subsequent learning activities the student will engage with.

##### *4.1.2. Encourage active 'student' agency*

The 360° feedback system embraces quality engagement via 'student-faculty contact', 'cooperation among students' and 'active learning'. This mechanism enables frequent student-faculty contact, which is an important factor in student motivation and involvement (Chickering and Gamson 1987). In this system, individual and his/her peers are required to take an active role, whereas teacher acts as one of the team members. This also helps downplay the power relationship between teachers and students as perceived generally. Staff and student interaction helps students in building their intellectual commitment and keep on working.

Good learning is collaborative and social, not competitive and isolated (Chickering and Gamson 1987). Peer evaluation and teamwork employed in the 360° feedback system



encourages cooperation among students. Sharing of ideas with peers and responding to peers' comments and queries helps to improve one's thinking and deepen understanding.

To work the feedback system requires students to be proactive in their learning. They should not just listen passively to teachers but must be encouraged to question their own understanding. Quality engagement is facilitated when students feel safe and approach the learning activity with joy and creativity.

#### *4.1.3. Provide staged or distributed feedback*

Learning without regular feedback is unlikely to orient students' effort in constructive ways in their quest for knowledge. The 360° feedback system must be organised to ensure distributed student effort across the course by dividing the feedback process into three highly systematic and sequential stages. This way, students are constantly guided by feedback to help them work through misconceptions or other weaknesses in performance (Crooks 1988; Freeman and Lewis 1998; Gibbs 1999). Furthermore, opportunities to provide feedback at multiple stages during an on-going assessment help to reorient students' motivation and effort in appropriate way (Carless 2002; Gibbs and Simpson 2004). Specifically, students learn through feedback in a progressive manner towards further development of long-term learning (Higgins, Hartley, and Skelton 2002). This distributed process also enables teacher to monitor students' progress and to provide them feedback which can be used to improve the quality of full submission. In essence, the 360° feedback system increases the amount of total feedback through careful planning of the frequency and quantity with which students are engaged in feedback process.

#### *4.1.4. Plan and monitor the group progress and group dynamics in learning*

The effect of social pressure on behaviours varies along different stages of learning. The effects are more pronounced when the task is ambiguous or when an individual has low self-confidence to attempt the task (Allen and Bragg 1968). The 360° feedback system by way of cooperative assessment and learning through group work provides the opportunity to minimise ambiguity and rekindle students' confidence during the knowledge acquisition phase of learning.

For the 360° feedback system to function effectively, students should identify and form peer groups. The reason for this lies in the belief that group norms over time enhance group cohesiveness and ultimately lead to cooperative learning. Additionally, group size needs to be deliberately kept small. The benefits of cooperative structure are greater when group sizes are small and when the task requires more interdependence among group members and the task is not a simple one (Crooks 1988).

Collaborative self- and peer assessment in the 360° feedback system benefits from social pressure in several ways. First, peers tend to have better knowledge and understanding than teachers on issues and difficulties facing their peers (Dochy, Segers, and Sluijsmans 1999). Thus, peer assessment in the 360° feedback system utilises the influence of relatively equal peers to encourage true cooperation and sharing to take place in the learning process (Wentzel 1994). In addition, cooperative structures in the feedback system encourage helping and within-group tutoring behaviours (Crooks 1988). This structure facilitates discussion, information exchange and idea generation in the peer group. Furthermore, peers have more opportunity to observe and monitor the progress of

others in the group. Social pressure helps to alleviate problem of social loafing and procrastination.

Group members are typically under the pressure to perform on a par with others or to some extent outperform others in the group. The 360° feedback system with an intervention provides students an opportunity to observe their peers' performance and to solicit feedback and suggestions from others and self-reflection. It is an influential pressure that keeps peers motivated to learn.

Additionally, the 360° feedback system serves as a platform for nurturing positive social bonding within a group. Social bonding established in a team can alleviate negative peer pressure, thereby allowing students to be relaxed in offering and accepting criticism constructively (Orsmond, Merry, and Reiling 2002). Thus, the ties among participants are an important platform for knowledge sharing. Moreover, learning in a cooperative group is more enjoyable than learning individually, and tends to enhance intrinsic motivation for learning (Crooks 1988).

#### *4.1.5. Adopt facilitation perspective*

Cooperative assessment, particularly self- and peer assessments incorporated in 360° feedback system shifts the role of teachers from teaching to facilitating active learning and the importance of passing on the responsibility of learning from teachers to students (Orsmond, Merry, and Reiling 2002). It encourages students to reflect on the assessment process as part of their own learning. Self- and peer assessments are novel experience to students, and therefore a mechanism of 'checks and balances' is needed to orient students to a position of stronger self-reflection for learning. The mechanism for this purpose is the teacher assessment, and is a critical supplement to confirm and/or remedy feedback and comments received by students or other sources.

In this manner, the 360° feedback system enables students to reflect on the assessment process as part of their learning. It also allows teachers to examine and reflect upon the assessment values and approaches as part of their teaching.

## **5. Conclusion and implications**

We have proposed 360° feedback system in a holistic manner for enhancing student-centred learning. We adopt the term 360° feedback system instead of the existing terms such as cooperative assessment or collaborative assessment because they emphasise only parts of the equation. The system proposed aims to provide a means for a more rounded feedback in teaching and learning. It utilises a mix of self-, peer and teacher assessments and places primary focus on a dialogic communication to engage all stakeholders proactively in the learning process. Moreover, it promotes congeniality and collegiality in 'assessment *for* learning'. Congeniality weakens the image of teachers as the unquestionable authority but recognises the importance of negotiated criteria, of autonomous and creative discourse among teachers and students (Sadler 1983). In addition, the 360° feedback system promotes collegiality by leveraging on the cooperative relationship among all stakeholders in the learning process to support one another.

The complexity of enhancing student learning experience has many facets, yet past research and policy demonstrate a proclivity towards an ad hoc and disjointed effort of focusing on single or a very narrow set of facets. A holistic perspective with an integrative approach, i.e. 360° feedback system offers potential as a fruitful teaching and

learning system for the benefit of all stakeholders. Part of the value of 360° feedback system lies in its potential to engage all stakeholders proactively in teaching and learning, guided by core elements of feedback. The integrated system enables novel actions to be formulated and implemented, since it allows disaggregation of understanding into pinpointed actions and activities for the transformation of assessment feedback into student-centred experience in teaching and learning. Effective learning comes about through interaction of the core elements underpinning the system. The combined effect of timely, prompt and regular feedback, quality engagement, quantity of feedback staggered by sequential stages, positive social pressure, self-reflection, and dialogic feedback communication when implemented in an integrated and organised whole will facilitate and enhance student learning.

The 360° feedback system presented here focuses on its implementation in the classroom settings of courses offered by management discipline. However, application of the 360° feedback system has the potential to be used in other disciplines and in non-classroom settings. Different disciplines such as fine art and engineering have different student needs and forms of assessments. Nonetheless, the three-stage approach and feedback components are generic enough to be applicable to such contexts but the intervention, which in this case was a poster presentation, is likely to require adjustment according to the specific needs and the context. As such, different contexts and types of intervention warrant further research attention.

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