Your feedback procedure, my inspiration: Enhancing student achievement through assessment

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Lecturers often claim that time constraints cause tension regarding feedback on students’ assessment opportunities. Assessment strategies for effective feedback procedures can lead to early identification of problem areas in student performance. Numerous students at higher education institutions (HEIs) do not complete their qualifications or take up to 6 years to complete a 3-year qualification. Situations like these may be avoided if lecturers provide informative feedback fostering self-directed learning, overall enhancing student achievement. In the quantitative, non-experimental descriptive research study reported on here, a set of questions was used to determine the following: (i) feedback procedures; (ii) feedback inspiration; and (iii) reflection on feedback. The data were collected from undergraduate and postgraduate students at a South African university. The 3 categories above revealed 3 tiers that form part of a metacognitive methodology which indicates that feedback procedures do play a role in student achievement. This study contributes to the body of knowledge on assessment and feedback as well as the implications for feedback on current practices of university lecturers and students’ future learning endeavours.

Keywords: assessment; feedback; feedback inspiration; feedback procedures; metacognitive methodology; reflection; self-directed learning

Introduction

Heavy investments in education by emerging economies have reaped benefits in the expansion of student competencies (e.g. cognition, knowledge, skills, and character). Such competencies are significant for economic productivity and for students to succeed in the 21st century (Tan, Lee, Flynn, Roseth & Joy Nam, 2016). Effective feedback fosters student competencies, since student confidence increases, leading to improved performance, moving learning forward and informing students on how to learn (Darling-Hammond, Flook, Cook-Harvey, Barron & Osher, 2020). Feedback that moves learning forward is one of six suggested strategies (see Black, Harrison, Lee, Marshall & William, 2004; Leahy, Lyon, Thompson & Wiliam, 2005; William & Thompson, 2007) through which assessment for learning (AFL) is manifested. Therefore, the following question was raised: “Is effective feedback endorsed in tertiary institutions (indirectly schools), enhancing student achievement and allowing for the realisation of productive individuals in South African society?” The aim of effective feedback as learning-oriented assessment is to strengthen learning with the belief that both summative and formative assessment can contribute to this goal “as long as a central focus is on engineering appropriate student learning” (Carless, 2007:59). Effective feedback comprises three interlinked elements: (i) learning-oriented assessment tasks; (ii) developing students’ evaluative expertise; and (iii) student engagement with feedback. Student engagement is linked to the quality of the assessment task. Thus, if students understand what the quality of an assessment task entails, they would perceive feedback as meaningful, consequently enhancing their performance. Feedback should, however, be timely, interactive, forward looking and acted upon to truly contribute towards student learning (Carless, 2007, 2015; Keppel & Carless, 2006).

Problem Statement
The following problem was addressed in this study:
To what extent does effective feedback based on lecturer assessment practices improve students’ self-directedness to meet their own future learning needs?

Aims
The aim of this study was to measure students’ perceptions regarding feedback received from lecturers on assignments. We also intended to identify and examine whether effective feedback was endorsed in tertiary institutions and whether it fostered student competencies.

Literature Review
In this section, we discuss the interrelatedness of feedback in assessment, feedback procedures, feedback inspiration, metacognition (referring to reflection), and how these foster self-directed learning (SDL).

Feedback in assessment
According to the Higher Education Academy (2013), feedback is popularly regarded as the correction of errors, or a reaction to the level of accuracy of students’ learning. Hattie and Timperley (2007) further add that
feedback is conceptualised as information provided based on aspects of students’ performance or understanding. Moreover, as indicated in relevant literature, feedback in assessment can only be effective and implemented successfully once all protagonists are actively involved in the feedback procedures (Spiller, 2014). Winne and Butler (1994;5740) provide an excellent summary in this regard: “feedback is information with which a learner can confirm, add to, overwrite, tune, or restructure information in memory, whether that information is domain knowledge, meta-cognitive knowledge, beliefs about self and tasks, or cognitive tactics and strategies.” Assessment and effective feedback procedures drive change in education and create an environment for learners that supports and rewards deep learning (Fadel, Bialik & Trilling, 2015).

**Feedback procedures**

Evans (2013) claims that all feedback procedures have the mutual aim of enabling an agent to bridge the gap between students’ actual level of performance and the desired learning objective. Hattie and Timperley (2007:82) suggest that

... it is useful to consider a continuum of instruction and feedback. At one end of the continuum is a clear distinction between providing instruction and providing feedback. However, when feedback is combined with a more correctional review, the feedback and instruction become intertwined until the process itself takes on the forms of new instruction, rather than informing the student solely about correctness.

We subscribe to the above view, as avoiding traditional feedback to students is vital to making feedback more effective and valuable (Al-Bashir, Kabir & Rahman, 2016). For the purpose of this research, we view traditional feedback practices as conventional methods of testing, revolving around written work such as class tests (quizzes) and exams (Quansah, 2018).

Ultimately, gaps between student performance and the desired level of cognitive development can be bridged through instruction and correctional review provided during feedback procedures. Feedback procedures are vital for all stakeholders. Feedback procedures make a difference in the lives of students, as research conducted by the William and Flora Hewlett Foundation has shown. Based on research conducted in over 500 schools, the Hewlett Foundation reports that students are more successful when they are informed on their performance and can reflect on where and how they should improve (Bitter & Loney, 2015). Agents (lecturers/educators) are enabled to guide students and give them leverage to reflect, direct, regulate and evaluate their own learning. In light of this, we provide a brief discussion of metacognition, as reflection on feedback is embedded therein.

Metacognition also features as a key element in the theoretical framework of this research.

**Metacognition**

Flavell (1979) coined the concept “metacognition.” He defined this concept as “[k]nowledge about cognitive phenomena” or “thinking about thinking” (Flavell, 1979:906). Thinking about one’s own thinking allows individuals to determine what they know (or don’t know), hence moving beyond knowing to reach an understanding of something (in this case, content) (Shetty, 2014). Flavell (1979) identified two components of metacognition, namely (i) metacognitive knowledge and (ii) self-regulation. These components are embedded in reflection before, during and after teaching-learning endeavours and are discussed in the next section.

**Metacognitive knowledge**

Metacognitive knowledge comprises three metacognitive awareness domains: (i) knowledge about person (declarative); (ii) knowledge about task (procedural); and (iii) knowledge about strategies employed in real-life situations (conditional).

Knowledge about person is the knowledge that students have about themselves as learners, including strengths and weaknesses and perceptions or experiences of feedback that could possibly influence their performance in their modules (Kallio, Virta, Kallio, Virta, Jhardemaal & Sandven, 2017; Schraw & Dennison, 1994).

Knowledge about task refers to heuristics and resources that students choose to apply to solve certain mathematical problems or to complete tasks (Doğan & Cephe, 2018; Schraw & Dennison, 1994). The feedback they receive on tasks can also influence how they approach future task-related endeavours.

Knowledge about strategies refers to students choosing the correct strategy in certain situations, allowing them to solve the problem, or directing the situation in a successful manner (Doğan & Cephe, 2018; Schraw & Dennison, 1994). Upon improved feedback, students may choose other strategies to solve similar problems related to their modules, as they would be aware that the strategies employed once were not successful in that particular situation.

**Self-regulation**

According to Flavell (1979) and Lerner, Brindis, Batanova and Blum (2018), self-regulation is employed successfully when individuals (students) are aware of their own cognition (metacognitive knowledge) in teaching-learning situations. Self-regulation consists of (i) planning, (ii) monitoring and (iii) evaluation.

Students (respondents in this research) should plan for their tasks upon receiving them in order to complete them within the given time frame. Their
progress should be monitored depending on the requirements of their tasks in the particular module – it should be ensured that they are on track and within the time frame to submit tasks for participation marks. Finally, lecturer feedback allows them to evaluate their performance and metacognitive knowledge relating to their overall approach to their tasks. Again, improved feedback on students’ tasks might yield different, improved, or more creative approaches when faced with similar problems in future modules.

Reflection on feedback
According to Branch and Paranjape (2002), reflection refers to the consideration of an experience or action based on assessment. Williams (2014) agrees with this, saying that reflection is a bridging tool between what is desired and how it will be attained. Reflection can thus be considered the glue between metacognitive knowledge and self-regulation (Ertmer & Newby, 1996).

Moreover, the University of Westminster (2010) proclaims that, central to their assessment projects, student reflection is compulsory and is initiated upon receipt of marked assignments. Reflection on feedback is regarded as students’ proactive reordering of methods to achieve set objectives based on feedback by lecturers after completion of an assignment.

Furthermore, Jackson and Marks (n.d.) suggest that, for all stakeholders to maximise the advantages of reflection, students should be encouraged to communicate their reflection on feedback by lecturers. The Center for Curriculum Redesign (2015) and Fathelrahman (2019) claim that reflection on feedback in assessment benefits both students and lecturers. Student competencies necessary in the 21st century and a synthesis of the commonalities between assessment and reflection on feedback are tabulated below (cf. Table 1).

Table 1 Synthesis of the commonalities between assessment and reflection on feedback (adapted from Fadel et al., 2015:42)

<table>
<thead>
<tr>
<th>Student competencies in the 21st century</th>
<th>Benefits for lecturers</th>
<th>Benefits for students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>• Improves monitoring of student progress in general education.</td>
<td>• Links students’ classroom involvement with future objectives.</td>
</tr>
<tr>
<td>Skills</td>
<td>• Provide a palpable representation of student strengths, interests, preferences and shortcomings.</td>
<td>• Actively involve students during the assessment process.</td>
</tr>
<tr>
<td>Character</td>
<td>• Facilitates communication between the lecturer and students.</td>
<td>• Students acquire skills in thinking and creativity.</td>
</tr>
<tr>
<td>Meta-learning</td>
<td>• Fosters reflection on students as learners and the lecturer as a “learner” themselves.</td>
<td>• Encourages self-regulation and -determination.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increases students’ responsibility for their own learning.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Stimulates students’ ability to think critically and fosters reflective thinking.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Students learn how to learn.</td>
</tr>
</tbody>
</table>

As for the benefits, reflection generally provides students with guidance in identifying their barriers, facilitating them in implementing solutions to their errors made during assessment. According to Carrington and MacArthur (2012, cited by McFadzien, 2015), reflection is the key catalyst for alteration. Thus, the onus of reflection is on students; they should engage in change and become self-directed in their learning endeavours.

Feedback inspiration
Reflection resulting from feedback by lecturers, and its consequential altering effect, has been heralded for its significant role in the development and enhancement of student learning (Uiseb, 2017). Inspiration results from reflection on feedback on assessment. Reflection on feedback leads to students becoming lifelong learners who can reflect on their own learning, achievements and barriers, hence becoming self-directed in their endeavours (Boase-Jelinek, Parker & Herrington, 2013). Bain, Ballantyne, Packer and Mills (2017) found that the acquisition of inspiration from feedback is based on the specificity of the feedback provided.

According to Hepplestone, Parkin, Irwin, Holden, Thorpe and Burn (2010), the following inspirational aspects originate from reflection, resulting in individualistic solutions and alterations, suitable for every student:

- reflection improves student performance in future assessments by assisting them in identifying errors, leading to different answering strategies;
- feedback and reflection therein prevent students from making continuous errors, motivating change in methods of learning;
- effective feedback serves as a revelation of different methods of conceptualisation, rendering deep learning.

Feedback on assessment and reflection on the feedback reveal self-efficacy beliefs, especially
when self-efficacy beliefs have previously been low. Additionally, feedback inspires students with positive planning, inevitably resulting in mastering complex concepts and overcoming barriers to learning and understanding (Duinhouwer, Prins & Stokking, 2012). In conclusion, the feedback-and-reflection process provides a clear pathway for previous misunderstandings and misinterpretations, resulting in inspiration that motivates students to succeed by applying metacognitive strategies and to be self-directed.

**Self-directed learning**

According to Knowles (1975:18), SDL means “individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating those learning outcomes.” SDL is synonymous with the practice of metacognition (Quirk, 2006), hence an essential part of this research and the characteristics required for a demanding 21st century (Shannon, 2008). For instance, metacognitive knowledge is necessary when lecturers determine what should be done upon assigning tasks to their students in order for the students to decide how they will apply resources and strategies to reach their learning goals. The lecturer provides effective feedback by using various assessment strategies. The feedback they provide should encourage students to adapt, change or add to their repertoire of strategies when faced with similar tasks in future study endeavours. Student achievement might increase as a result (Quirk, 2006; Shetty, 2014). Students self-regulate to complete tasks based on their metacognitive knowledge in order to receive feedback and evaluate the learning outcomes and goals they have set for themselves. Therefore, improved feedback might foster SDL, as students would know how to adapt and change approaches for future teaching-learning endeavours. However, self-assessment (reflection) by students after they have received feedback is the most important component of SDL and also the most difficult to master (Embo, Driessen, Valcke & Van der Vleuten, 2010; Quirk, 2006).

**Theoretical Framework**

Three categories emerged from this research: (i) feedback procedures; (ii) reflection on feedback; and (iii) feedback inspiration. In this quantitative, non-experimental, descriptive study, a metacognitive methodology was chosen as the theoretical framework, as we had to understand the awareness, perceptions and experiences of tertiary students with regard to feedback from their lecturers (Jagals & Van der Walt, 2016; Potgieter & Van der Walt, 2019). According to Creswell (2014), a non-experimental descriptive research design collects information on variables but does not include comparative groups. The two variables identified in this research were (i) feedback and (ii) student achievement. The association between these two variables integrated within a metacognitive methodology led us to a collective understanding of students’ awareness, perceptions and experiences of lecturer feedback, which might shape future teaching-learning experiences at HEIs. A metacognitive methodology allowed us to distil three metacognitive tiers that emerged from the data which are discussed later in the article.

**Research Methodology**

The link between the theoretical framework and research methodology reinforces one another as they are two sides of a coin that cannot be separated. Flowing from the theoretical framework which we deem as overarching to the research methodology, we aimed to measure students’ (in the case of this study, “respondents”) perceptions of feedback on assignments. Since the theoretical framework answers our approach to solve our problem, we elaborate on our methods regarding sampling, data collection and data analysis in this section.

A questionnaire was employed as data collection method. A sample of 210 respondents from a South African university was used to obtain scores in 25 items focusing on feedback inspiration, feedback procedures and reflection on feedback. Feedback inspiration determined perceptions of sensitivity and compassion towards the student, the positive effect on self-esteem, motivation, achieving better results, and appreciation for their work. Feedback procedure focused on the procedure followed by lecturers to physically assess (i.e. time, feedback given, criteria according to which assessment would take place), as well as indicators to improve on assignments. Reflection on feedback is a guiding tool to identify barriers and engage in change.

The sample consisted of 42 undergraduate and postgraduate education students per year group enrolled at a South African university in the Gauteng province. Purposive convenience sampling was used as sampling technique, as the students were enrolled at the university campus where we lectured at the time of the research. This sampling technique was used as such a sample was deemed best to help us understand the problem – the respondents were all exposed to feedback in their respective degrees (Creswell, 2014; Maree & Pietersen, 2016a). The respondents represented a heterogeneous sample in terms of age, gender, socio-cultural background and academic performance. All respondents had full command of the language of teaching and learning.
A self-developed questionnaire comprising 25 items was used to collect the data. The questionnaire was administered in 2017 during the first semester. Questions were coded using a 4-point Likert scale with responses varying from 1 (strongly disagree) to 4 (strongly agree), which is an ordinal measure of a respondent’s attitudes (Maree & Pietersen, 2016b).

Cronbach’s alpha was used to measure the degree of internal consistency of the research instrument. Cronbach’s alpha coefficient was calculated for the 25 items in the questionnaire and was .849 for the entire questionnaire. The reliability for inspiration on feedback was .850, for the procedure of feedback, .752, and for reflection on feedback, .847.

**Results**

We report here on the results of the total number of respondents. However, an overview of the number of respondents across the various year groups (undergraduate and postgraduates) is provided in Table 2.

**Table 2 Respondents per year group**

<table>
<thead>
<tr>
<th>Year group</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>42</td>
</tr>
<tr>
<td>2</td>
<td>42</td>
</tr>
<tr>
<td>3</td>
<td>42</td>
</tr>
<tr>
<td>4</td>
<td>42</td>
</tr>
<tr>
<td>PGCE¹</td>
<td>42</td>
</tr>
</tbody>
</table>

Notes: ¹Postgraduate Certificate in Education.

As metacognitive methodology was employed in this research, the results are reported according to the three metacognitive tiers that emerged from the data.

**Tier 1: Feedback Procedures**

Table 3 provides an excerpt of a section of the questionnaire concerning the first tier.

**Table 3 Excerpt of quantitative questionnaire based on feedback procedures**

<table>
<thead>
<tr>
<th>#</th>
<th>Feedback procedures</th>
<th>Disagree %</th>
<th>Agree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>The lecturers usually postpone feedback on my assignments for some other reason.</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>9</td>
<td>The feedback on my assignments is mainly written comments only.</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>10.*</td>
<td>The feedback on my assignments is mainly a mark only.</td>
<td>41</td>
<td>58</td>
</tr>
<tr>
<td>11.</td>
<td>The feedback on my assignments is mainly presented by means of rubrics.</td>
<td>35</td>
<td>65</td>
</tr>
<tr>
<td>12.*</td>
<td>The feedback on my assignments is mainly written comments supplemented by a mark.</td>
<td>40</td>
<td>59</td>
</tr>
<tr>
<td>13.*</td>
<td>The feedback on my assignments is usually very general.</td>
<td>28</td>
<td>71</td>
</tr>
<tr>
<td>14.*</td>
<td>The feedback on my assignments is clear and understandable.</td>
<td>33</td>
<td>64</td>
</tr>
<tr>
<td>15.</td>
<td>The feedback on my assignments is difficult to interpret for future improvement of my work.</td>
<td>59</td>
<td>41</td>
</tr>
<tr>
<td>16.*</td>
<td>The feedback on my assignments provides concrete recommendations and examples on how I could improve on my future assignments.</td>
<td>47</td>
<td>52</td>
</tr>
<tr>
<td>17.</td>
<td>The feedback on my assignments makes me realize why I achieved the specific results.</td>
<td>41</td>
<td>59</td>
</tr>
<tr>
<td>18.</td>
<td>The feedback on my assignments assists me to identify weaknesses in my assignments in good time.</td>
<td>38</td>
<td>62</td>
</tr>
<tr>
<td>19.</td>
<td>The feedback on my assignments assists me to identify strengths in my assignment writing.</td>
<td>31</td>
<td>69</td>
</tr>
<tr>
<td>20.</td>
<td>The feedback on my assignments assists me to identify ways in which I can improve my future assignments.</td>
<td>29</td>
<td>71</td>
</tr>
<tr>
<td>21.</td>
<td>Lecturers usually provide the applicable assessment criteria when introducing the assignment.</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>22.*</td>
<td>The feedback on my assignments is related to the assessment criteria I received from my lecturer.</td>
<td>17</td>
<td>82</td>
</tr>
</tbody>
</table>

Notes: *Missing responses.

With regard to feedback procedure, the highest of the scores for each entry is in favour of the agree option, making it clear that students were not satisfied with the procedure in which they had received feedback.

**Tier 2: Reflection on Feedback**

Table 4 provides an excerpt of a section of the questionnaire concerning the second tier.
Table 4: Excerpt of questionnaire: reflection on feedback

<table>
<thead>
<tr>
<th>Reflection on feedback</th>
<th>Disagree %</th>
<th>Agree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 The feedback on my assignments increases my awareness of the special assessment criteria.</td>
<td>21</td>
<td>78</td>
</tr>
<tr>
<td>24 The feedback on my assignments creates opportunities for personal reflection on how to approach my future assignments.</td>
<td>23</td>
<td>76</td>
</tr>
<tr>
<td>25 The feedback on my assignments improves my understanding of the importance of self-assessment.</td>
<td>25</td>
<td>74</td>
</tr>
</tbody>
</table>

From Table 3 it is clear that feedback on their assignments added little value to their academic growth.

Tier 3: Feedback Inspiration

Table 5 provides an excerpt of a section of the questionnaire concerning the third tier.

Table 5: Excerpt of quantitative questionnaire – feedback inspiration

<table>
<thead>
<tr>
<th>#</th>
<th>Feedback inspiration</th>
<th>Disagree %</th>
<th>Agree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The feedback on my assignment usually reflects sensitivity and compassion towards me as a person.</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>2</td>
<td>The feedback on my assignments usually has a positive effect on my self-image.</td>
<td>24</td>
<td>75</td>
</tr>
<tr>
<td>3</td>
<td>The feedback on my assignments usually motivates me to achieve better results.</td>
<td>18</td>
<td>81</td>
</tr>
<tr>
<td>4</td>
<td>The feedback on my assignments usually contains appreciation for my hard work.</td>
<td>32</td>
<td>68</td>
</tr>
</tbody>
</table>


Most of the respondents (70%) agreed that feedback on their assignments usually reflected sensitivity and compassion toward them as individuals and motivated them to achieve better results. The respondents also indicated that the feedback on their assignments usually contained appreciation for their hard work and that lecturers did not postpone feedback for some reason or another.

Discussion

This results are presented in this section.

Tier 1: Feedback Procedures

The results with regard to feedback procedures (Tier 1) were grouped into four overarching themes (Table 6).

Table 6: Overarching themes that emerged from the results (Tier 1)

<table>
<thead>
<tr>
<th>Overarching themes</th>
<th>Questions from excerpts pertaining to particular overarching themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Appearance of feedback itself as obtained from lecturers</td>
<td>Feedback is mainly written comments.</td>
</tr>
<tr>
<td></td>
<td>Lecturers postpone feedback.</td>
</tr>
<tr>
<td></td>
<td>Feedback is in the form of a mark only.</td>
</tr>
<tr>
<td></td>
<td>Rubrics are used to assess assignments.</td>
</tr>
<tr>
<td></td>
<td>Feedback is very general.</td>
</tr>
<tr>
<td>ii. Assessment criteria accompanying assignments</td>
<td>Lecturers provide applicable assessment criteria when introducing the assignment.</td>
</tr>
<tr>
<td></td>
<td>Feedback is related to assessment criteria and is clear and understandable.</td>
</tr>
<tr>
<td>iii. Feedback and its influence on respondent achievement</td>
<td>Feedback assists respondents in identifying strengths and weaknesses in assignment writing.</td>
</tr>
<tr>
<td></td>
<td>Feedback provides concrete recommendations and examples for future improvement.</td>
</tr>
<tr>
<td></td>
<td>Feedback allows respondents to realise why they achieve specific results.</td>
</tr>
</tbody>
</table>

These overarching themes were obtained by grouping related questions from the questionnaire and synthesising the results. Theme 1 was conceptualised through the grouping of Questions 8 to 13; Theme 2 through the grouping of Questions 14, 21 and 22; and Theme 3 through the grouping of Questions 15 to 20 (cf. Table 2).

Nature of feedback obtained from lecturers

It was difficult for the respondents to bridge gaps between their level of performance at the time and reaching their learning goals (Evans, 2013). Lecturers’ “fuzzy” feedback procedures (generalised responses) limited respondents’ self-awareness of areas of improvement, possibly
impacting their self-directedness (Choi & Anderson, 2016). Feedback cannot be traditional (i.e. mark only) – it should enhance the overall quality of respondents’ learning (Pereira, Flores, Simão & Barros, 2016). This is supported by the results of the number of students who indicated that the feedback had a positive effect on their self-image (75%). The majority (81%) of the respondents indicated that the feedback on their assignments usually motivated them to achieve better results.

Assessment criteria accompanying assignments
Lecturers provided applicable assessment criteria for assignments, but how respondents interpreted them could also have had an influence on their approaches to writing assignments. According to Nicol and Macfarlane-Dick (2006), lecturers’ and respondents’ understanding of assessment criteria should be shared before, during and after assessment has taken place, otherwise feedback given (or obtained) is not effective.

Feedback and its influence on respondent achievement
According to Hattie and Timperley (2007), effective feedback allows respondents to answer questions such as, “Where am I headed to?” (referring to goals); “How am I going to reach them?”; “Am I making progress to reach them?”; and “Where do I go from here?” Although feedback by lecturers may lead to respondents being able to identify strengths, weaknesses and recommendations for future improvement, the onus is on the respondents themselves to adopt these characteristics (to answer the questions posed by Hattie and Timperley). This would allow students to apply their knowledge of feedback to similar learning contexts in the future (Pereira et al., 2016).

Tier 2: Reflection on Feedback
According to Carless (2006) and Pereira et al. (2016), reflection on feedback allows students to learn quicker in a more effective manner, since they are aware of what they have to do based on previous learning experiences. The results in Tier 2 show that feedback allowed for an increase in the respondents’ awareness on how to approach future assignments differently. More than 73% of the respondents agreed that reflection on feedback allowed them to react to their own interpretation of the learning outcomes (self-assessment) as soon as a particular learning process was completed, hence they reflected on their own competencies, strengths and weaknesses. This type of reflection is valuable for respondents to adjust for future learning endeavours (Pereira et al., 2016), which contributed to their self-directedness as indicated by 71% of the respondents who claimed that the feedback on their assignments assisted them to identify ways in which they could improve future assignments.

Tier 3: Feedback Inspiration
The results on feedback inspiration (Tier 3) indicate that feedback was sensitive, compassionate and motivational. As soon as respondents are motivated by the feedback they receive, they tend to regulate and improve their future endeavours (Orsmond, Maw, Park, Gomez & Crook, 2013). Although respondents often consider effective feedback a guide to improvement, lecturers may use it as motivation for respondents to be more self-directed in their personal learning endeavours (Pereira et al., 2016). Robinson, Pope and Holyoak (2013) support the latter, saying that, when respondents are more metacognitively aware due to compassionate and motivational feedback, they direct their learning by adapting their strategic knowledge to improve on future learning.

Figure 1 illustrates the interrelatedness of the three tiers and how it may allow for enhanced student achievement.
Figure 1 Synthesised integration of feedback procedures, inspiration and reflection for enhanced student achievement
Figure 1 is a strategized approach to effective feedback that HEI lecturers (and possibly educators) could implement to enhance respondent (learner) achievement. Tier 1 (feedback procedures) suggests prompts to the respondents that lecturers could apply before, during and after feedback to the respondents. These prompts might be time-consuming in the planning of assignments before feedback is given, or during feedback where a more individualised approach (each respondent in particular) is followed (Al-Bashir et al., 2016). However, feedback has more advantages that respondents may use to add to their learning repertoire for future use.

Proper reflection on feedback (Tier 2) is also advantageous, as respondents become more aware of expectations of the lecturer pertaining to a specific assignment (Boase-Jelinek et al., 2013).

Feedback inspiration (Tier 3) is often obtained by motivating respondents to do better – this avoids weaker performances as respondents are more motivated to try harder to complete future assignments (Perera, Lee, Win, Perera & Wijesuriya, 2008). Respondents also tend to pace themselves better, fostering SDL to complete their tasks (assignments).

These feedback procedures might possibly enhance respondent (student) achievement, but have limitations. We, therefore, suggest further research. More in-depth data collection methods could be employed, such as conducting interviews with students. Differences in feedback orientations in different modules (courses) may also influence assignments, hence differences in feedback and inspiration drawn by respondents.

Ethical Considerations

Consent to conduct the research was obtained from the Ethics Committee as well as the Faculty of the selected South African university. The respondents were informed about the nature of the study, what their participation would entail, why they were selected, and other ethical implications (i.e. voluntary participation, confidentiality and anonymity) (Creswell, 2014). After the purpose of the research and the ethical implications had been explained to the respondents, they consented to participate by completing the consent forms and continued to complete the questionnaire.

Recommendations and Conclusion

The research results suggest that careful consideration should be given to feedback procedures before, during and after student learning. Feedback procedures may elicit improved and diverse assessment practices by HEI lecturers. This study has implications for both lecturers, undergraduate and postgraduate students, as feedback procedures have a direct impact on reflection and inspiration at tertiary level. This study shows that effective feedback fosters student competencies such as cognition, knowledge, skills and character, all of which might contribute to students becoming critical of themselves and the world of work in South Africa. This research should not be deemed a one-size-fits-all approach but rather a roadmap for lecturers for feedback improvement, as students ultimately draw inspiration from feedback to improve their achievement in future learning endeavours. It is further recommended that this study should be undertaken at other HEIs to improve on the quality of support to students through feedback from HEI lecturers as assessment in higher education tends to be a leading topic under discussion.

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Authors’ Contributions

MK conceptualised the article and collected the data with the late Prof. KL, who was the initial co-author at the time. EP was approached and contributed to the overall metacognitive methodology of the paper. Both authors wrote the discussion of the results, findings, recommendations and conclusion.

Notes

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References


