The effects of supervisors' formative feedback: Reflections of students in a postgraduate programme

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Abstract

Traditionally, higher education produced knowledge for the social good, until globalisation shifted its role to the production of economically productive knowledge. This shift placed immense pressure on universities to increase the number of research-active staff and to equip students with skills to produce commodified knowledge. Consequently, supervisors' feedback became central to improving research outputs in the global economy. This study investigated the effects of supervisors' formative feedback on postgraduate students enrolled in a University of Technology in South Africa. Data were collected through questionnaires and analysed thematically. The social constructivist theory informed this study. Students perceived formative feedback to have positive and negative effects. These results have implications for the manner in which supervisors provide feedback to their students.

Keywords: formative feedback, effects, economy, commodity, supervisor, knowledge

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Introduction

Globalisation has shifted the traditional roles of universities from producing knowledge for the social good to the production, dissemination and transfer of economically productive knowledge, innovation and technology (Carnoy, 1994, cited in Naidoo, 2003). This development has forced higher education institutions (HEIs) to sell their knowledge in the competitive international marketplace. Wright, Filatotchev, Hoskisson and Peng (2005) note that this trend is more evident in developed than in developing countries. With the rapid technological advances occurring in developing countries, Friedman (2006) predicts a decline in the differences between these groups of countries, which is likely to diminish the gap in the amount of knowledge they produce for the marketplace.

Castells (1991, cited in Naidoo, 2003), Ninnes and Hellstén (2005) and other globalisation theorists contend that, in order for developing countries to move from the periphery to the centre of the world economy, they must increase their production of commercialised knowledge. According to Naidoo (1998), developing countries like South Africa have heeded the call for reformulating university research to one of commodity production by developing policies that allow higher education to participate actively in the global economy. Naidoo (1998) could be correct, judging by large investments that the South African National Research Foundation (NRF) makes towards knowledge production by university staff and postgraduate students. For example, the NRF annually presents to the South African PhD Programmes information that helps disseminate knowledge about its financial resources and skills of conducting research to the PhD students enrolled in the country's universities. Moreover, the NRF provides financial assistance to the Master's and doctoral students, and to staff employed in universities and other state organisations to find lecturing and administrative substitutes so that they can focus on their research. Besides this, the NRF conducts ratings of South African researchers that give them national and international recognition and status as established researchers. In its document entitled "Evaluation and rating of individual researchers" (2013), the NRF unequivocally states that its rating system is a key driver in its aim of building a globally competitive science system in South Africa.

In order to fulfil their mandate of producing commodified knowledge, HEIs across the globe face immense pressure to increase the number of staff active in research (Naidoo, 2003). This pressure

is evident in South African universities where academics are required to publish in accredited journals and to produce graduate outputs. Universities are also expected to increase access to higher education (Kraak, 2000; Rye, 2009) and to equip postgraduate students with higher order skills and knowledge of producing marketable knowledge. In return, they receive research subsidies from the Department of Higher Education and Training (DHET) for each publication that staff contribute in accredited journals and conference proceedings, as well as for each student completing a masters or doctoral degree. That is why supervisors' feedback is highly valued in South African universities, as it can expedite postgraduate students' graduation.

There is abundant literature on supervisors' feedback and its role in promoting students' acquisition of knowledge and skills in the developed world, such as the United States of America, New Zealand, and the United Kingdom. There is also emerging of research on postgraduate supervision in developing countries like South Africa (de Lange, Pillay and Mukoko 2011; Wadesango and Machingambi, 2011). However, there is dearth of research on the effects of supervisors' feedback on postgraduate students. Wadesango and Machingambi's (2011) study touched on feedback but did not address this issue in depth. This study therefore investigated the perspectives of students pursuing Master of Education (M.Ed) and Doctor of Education (D.Ed) degrees in a South African University of Technology (UoT) on the effects of supervisors' formative feedback. Various aspects of feedback were investigated, such as the type of feedback (e.g. written/verbal, tracks/ hard copy, critical/uncritical) given to the students; the manner in which it was provided (e.g. positively/negatively/frequently/irregularly); the tone of feedback (e.g. compassionate/ sensitive/ sympathetic/ rigorous) and effects on students (encouraging/ discouraging/ enhancing or retarding growth). The research question was: What are M.Ed and D.Ed students' perceptions of the effects of supervisors' formative feedback on them? My premise was that if supervisors provided feedback with compassion, support, encouragement and respect, or 'compassionate rigour' (Manathunga, 2005 in Albertyn, Kapp and Bitzer 2008: 751), it was likely to contribute positively to the students' growth and development. In this study, formative feedback refers to written or verbal comments, suggestions or information that the supervisors provide to the postgraduate students while they write draft chapters of their theses, with the goal of helping them to achieve the expected or acceptable standards of thesis writing.

Context of the study

As shown earlier, this study involved M.Ed and D.Ed students studying in a UoT. The databases of the institution revealed above-average attrition rates, resulting in correspondingly low rates of graduate-outputs. The M.Ed and D.Ed programmes that the students are enrolled in are by research only; there is no coursework. Seminars are held at least once a month to cover certain research topics but, in my opinion, they do not provide the depth of knowledge as offered in a structured coursework. The Head of Department (HOD) of Research matches students' research topics with the supervisors' areas of research interest. Students who fail to make satisfactory progress receive warnings, after which they may be withdrawn if they do not provide valid reasons. Occasionally, the institution or faculty provides supervision workshops that supervisors are encouraged to attend.

Although regular discussions occur about persistent low graduate outputs and high attrition rates in these programmes, little is known about their causes, as no research has ever been conducted to find out why the situation is as it is. Mention is often made of poor supervision and feedback given to the students, but there is no scientific basis to support these claims. This study is thus an effort to investigate whether formative feedback was indeed one of the sources of these problems.

Theoretical framework

The theory of social constructivism (Vygotsky, 1987) informed this study. As a theory of learning, constructivism has as its tenets two important dimensions: (i) that learners actively construct and acquire their own understanding and knowledge of the world. In other words, learners are active creators of their own knowledge, and (ii) that learners actively create their own novel ways of knowing when faced with unfamiliar problems. In thesis writing, students are given opportunities to create knowledge, with the supervisor in the background playing a supportive role.

Vygotsky (1987) distinguishes between actual and potential development. He defines actual development as the knowledge that the learner possesses. Lipnevich (2007) refers to actual development as current knowledge, and to potential development as desired knowledge. Potential development is the desired standard of work expected, that is, what the learner is capable of knowing with the assistance of the most knowledgeable other (MKO) who, in the case of postgraduate supervision, is the supervisor. Between these two developmental stages

lies the zone of proximal development (ZPD) that represents a gap between actual and potential development. Black and William (2003) maintain that this gap is closed only when the learner has realised potential development. Vygotsky (1987) suggests that to close this gap, learners' learning should be scaffolded, as scaffolding (guidance and assistance) makes it possible for them to receive feedback from the MKO. Harris (2006: 141) defines scaffolding as a "'steel' frame upon which students' learning is enhanced". What is profound about Vygotsky's (1987) theory is that during scaffolding, the learner is actively involved in a dialogue with the MKO (or supervisors in this case) to find a solution to a problem at hand. The more scaffolding occurs, the narrower the gap between actual and potential development, and the easier it is for the learner (postgraduate student) to proceed to the next level of development (thesis writing). Once students have mastered the skill(s) expected of them, the scaffold should be gradually removed for them to progress independently. Social constructivism is relevant to this study as, during supervision, postgraduate students are guided and assisted by the MKOs, their supervisors. During scaffolding, supervisors provide feedback and students use it to develop and increase their research skills. It is the impact of this assistance that is the concern of this paper.

Literature review

Supervision of postgraduate students

Postgraduate supervision assists students to acquire the skills of conducting research so that they can produce new knowledge independently. During supervision, the high expectations and expertise demanded of the supervisors as they guide students present a challenge for both supervisors and students (Heath, 2002). De Lange, Pillay and Chikoko (2011: 16) put it succinctly when they say, "Successful supervision… requires higher order thinking and deep approaches to teaching and learning and this often poses challenges for both students and supervisors". Supervision requires students "to learn how to learn in order to continuously upgrade their skills in tune with the demands of a changing global economy" (Naidoo and Jamieson 2005: 38). Evidently, supervisors and students do not acquire these skills fortuitously. That is why the role of supervisors' formative feedback is critical.

Supervision and formative feedback provision appear to be characterised by tensions. East, Bitchener and Basturmen (2012: 1) argue that "What the student wants to receive by way of feedback

may sometimes differ from what the supervisor gives, thereby creating potential tensions in the supervisor-student relationship, and marring its effectiveness". Sambrook, Stewart and Roberts (2008: 82) acknowledge the complexity of giving and receiving feedback, arguing that a "genuine constructive critique can often be perceived [by students] as being 'negative' (bad and painful) or 'positive' (nice and encouraging) when it could be argued that all feedback is positive in its attempt to improve performance". Negative perceptions of feedback can have serious implications for the quality of students' work, and for how they subsequently utilise the feedback. Indeed, tensions emanating from different opinions about feedback can occur if students have strong opinions about ideas they want to incorporate in their theses but supervisors oppose them. Sometimes supervisors meet students who exhibit behaviours that make them feel threatened and uncomfortable. To maintain healthy supervisor-supervisee relationships, supervisors should respect students' opinions and find professional ways of dealing with feedback-related conflicts. Taylor (2002) claims that feedback has an overwhelming influence on the behaviour and performance of research students. I argue that students may behave in different ways depending on the type of feedback they receive and how it is provided to them.

Conceptual definition of feedback

Lipnevich (2007) and Ilgen and Davis (2000) define feedback as information about students' performance and the existing discrepancy between their current and desired states of knowledge. Feedback can be categorised into formative and summative feedback. Formative feedback provides information related to identifying gaps and helping students to improve the performance of their tasks (Mathers, Oliva and Laine, 2008; Taras, 2005). Vygotsky (1987) defines formative feedback as scaffolding of students' learning which helps them to reach beyond their current cognition level. Summative feedback is given at the end of a course to make a final decision on the success or failure of a student (Chudleigh and Gibson-Gates, 2010; Mathers et al., 2008). This study focuses on formative feedback, and adopts Vygotsky's (1987) definition of formative feedback, as it points to the scaffolds (written or verbal comments, suggestions or information) that help students reach expected standards of thesis writing beyond their current cognitive levels.

Feedback interventions

Kluger and De Nisi (1996) approach feedback from a behaviourist

perspective, and claim that behaviour is regulated by comparisons of feedback with goals or standards (and identification of gaps between the two). The most important contribution they make in the feedback discourse is that feedback or feedback interventions (FIs) improve task performance and task mastery. In other words, the more the task becomes familiar to the student, the better he or she performs, which might call for a withdrawal of the scaffold to let the student work independently. The converse is, however, true because as task complexity increases, task performance decreases (Ackeman, 1992). In the latter situation, provision of formative feedback might need to be intensified.

Both these views are crucial in the postgraduate students' developmental stages of becoming experienced researchers. Initially, it is generally assumed that students, especially those conducting research for the first time, are not familiar with conducting research and writing a thesis. At this stage the supervisor's FIs are likely to be very intensive, but gradually, with more guidance and assistance from the supervisor, students can master the research skills and begin to work independently. It is at this stage that the supervisor gradually fades. However, it may be important to scaffold the students' learning during the final stages of thesis writing, as once again, the task may become more complex, leading to a decrease in task performance.

Several conclusions can be drawn from the literature. One is that although students need formative feedback during thesis writing, providing and receiving it is contentious. The other is that formative feedback can contribute to the students' cognitive development during thesis writing. Therefore, supervisors should prioritise it. The other important point is that it is crucial to remove scaffolding to give a student an opportunity to progress independently.

Design and methodology

The design was a qualitative case study of an M.Ed and D.Ed programme. Yin (2009) points out that a qualitative case study should answer explanatory questions such as 'what', 'how' and 'why'. In this study, the focus was on 'what' in reference to the type of feedback supervisors provided to the students, and 'how' in reference to the manner in which supervisors provided feedback and its effects on students. The 'why' could be embedded in the reasons students gave for why feedback affected them the way they said it did. Therefore, the qualitative case study design was appropriate for this study. The sampling procedure was purposive, as the researcher selected participants enrolled in

the postgraduate programme as they were more likely to contribute appropriate data.

Data were collected using open-ended questionnaires containing questions on the effects of supervisors' feedback on students. Questionnaires were sent by email to forty one (41) M. Ed. and D. Ed. students, based on availability of their names and email addresses in the databases. Twenty seven responses were received; nineteen M.Ed. and eight D. Ed. students. This response rate was considered adequate as more than half of the participants responded. In conducting data analysis, I 'listened' to the participants' voices from the answers provided and interpreted the phenomena from their perspectives, using the coding and highlighting approach to categorise data (Cohen, Manion and Morrison, 2007).

Before the questionnaire was sent out, two established researchers with NRF rating verified its authenticity. Five of the student participants reviewed analysed data and the draft of the article to ensure authenticity of ideas presented in the study. Ethical considerations were observed. Participants were informed of the confidentiality of information and identity. Ethics clearance was obtained from the Faculty's Ethics Review Committee. Pseudonmys were used to conceal the identities of participants.

Results and discussion

Students gave their different perceptions of the effects of supervisors' feedback on them. These perceptions ranged from personal to psychological effects. They perceived two types of feedback effects: positive and negative effects that are presented below.

Positive effects of feedback on students

Growth and development

From the students' utterances, it became evident that constructive feedback had a positive effect on their growth and development. The theme of 'constructive feedback' emerged from approximately two-thirds (65%) of the students who outlined its positive effects, among who was Mattie who stated that:

> My supervisor gives me constructive feedback which always leads me to growth and development. It points me to the right direction and encourages me to explore and dig deeper with a more critical eye.

Mattie's words extend Hyland's (2009) view that constructive feedback

helps in the students' enculturation into discipline-relevant literacy and epistemologies. In East et al.'s (2012) study on effective feedback, they found that students were of the view that constructive feedback serves as a strong framework that guides and assists them to gradually master the research skills and be able to work independently. If constructive feedback is reinforced in the postgraduate programmes under study, it would enable students to produce knowledge and enhance South Africa's participation in the competitive global marketplace.

Developing a sense of adequacy

Approximately two-thirds (67%) of the students emphasised the effects that positive feedback had on their self-esteem. They reported that it made them feel worthy, and also prepared them to be receptive to negative feedback, as articulated by Martin below:

> I receive positive feedback from my supervisor. This makes me feel like I'm less incapable (sic) than what I think. Postgraduate studies can fill you with lots of self-doubts and make you feel like you are incapable…. The positive feedback I receive gives me confidence, and motivates and helps me to deal with the negative feedback that follows.

In de Lange, Pillay and Chikoko's (2011) study, one of the students expressed the same sentiment that "I enjoyed receiving feedback without being made to feel inadequate". This shows that feedback has an affective effect on the students, a fact confirmed by Taylor (2002). Evidently, positive feedback affects students and evokes certain emotions. Therefore, supervisors should be mindful of the manner in which they provide feedback to students and ensure that students experience positive feedback as well, as it can motivate them to self-actualise and reach their full potential.

Development into critical researchers

Of the 27 students who participated in the study, only four mentioned the expression 'critical feedback' in their responses. Nolene, one of the participants, stated that critical feedback made them into critical researchers, as illustrated in the following response:

> My supervisor provide (sic) me with critical feedback which direct (sic) my thinking and allow me to grow as a researcher. I find that in the subsequent chapters I have become more critical in my writing than in the previous ones. This motivates me to work harder because I can see the light at

the end of the tunnel.

Nolene's view was supported by Charmaine who pointed out that,

> Critical feedback helps the student to explore and dig dipper with a more critical eye. Students should not view the critical nature of feedback as personal and as an attack on their own abilities as postgraduate students.

Judging by these students' statements, one can infer that they react positively to critical feedback. In Young's (2000) study in which students rated their self-esteem on a scale, she found that they reacted differently to critical feedback, depending on whether their self-esteem was high, medium or low. Students with lower self-esteem tended to misconstrue critical feedback intended to be positive as negative. Nolene and Charmaine's statements above imply that they are confident and have high self-esteem, in light of Young's claim. Therefore, supervisors should ensure that they provide critical feedback in a sensitive manner, as doing so is likely to help those students with low self-esteem to handle critical feedback effectively.

High motivation and interest

Students' responses revealed that in order to be motivated and stay on-task, feedback had to be given at various stages of thesis writing, depending on their preferences. This was obvious from the stages they cited as critical for feedback provision. For instance, slightly more than two-thirds (68%) of the research participants claimed that feedback given at the beginning of thesis writing kept them motivated, as this was the most difficult part; 14% preferred it throughout the thesis writing; 11% recommended that feedback be provided at the beginning and end of writing, 3% preferred it toward the end of the thesis and 4% did not indicate any preference. Michael, a doctoral student at an advanced stage of thesis writing reported that he found receiving feedback at the beginning and concluding stages of thesis writing helpful

> Feedback that I received especially during the initial stages of my research, and concluding contributions (sic) are (sic) certainly helping me to develop my research skills effectively.

Students' preferences for the stages at which feedback is the most effective raise questions regarding the appropriate time at which scaffolding should be given and withdrawn. Thesis writing is a daunting task for the majority of postgraduate students (Thow and Murray, cited in Lee, 2007), as supported by the bulk of international research on this area. Hence, to have effect, I suggest that feedback be provided throughout

the thesis-writing process while the supervisors allow students to take ownership of their work. This suggestion is made notwithstanding the fact that students from different contexts and across the globe have different learning styles.

Timely feedback, which was highlighted by slightly less than two-thirds (64%) of the students, appeared to yield positive effects, as noted by Colleen:

> My feedback is always timely. It is normally provided within hours to a day, thus I do not have to wait long at all. If it's late by a day or two, my supervisor immediately contacts me by phone or email. I incorporate it in my thesis as soon as I receive it to improve my research.

In Albertyn et al.'s (2008) study that investigated supervision experiences of postgraduate students, students reported receiving feedback within a week. Timely feedback is likely to provide students with an opportunity to reflect on their work while it is fresh in their minds. Colleen's statement of "incorporating it in the thesis *as soon as I receive it*" might signal high motivation and interest, which can help students complete their theses on time.

Negative effects of feedback on students

Unhealthy supervisor-supervisee relationships

From the students' responses, it appeared that negative effects of feedback took different shapes and forms that sometimes affected supervisor-supervisee relationships. The theme of condescendence emerged in the students statements, as described by 2% of those who regarded feedback as 'condescending', 'disparaging' and 'undermining'. Among them was Jose who csaid,

> I don't like the condescending feedback I receive from my supervisors. It can make that (sic) you either respect or disrespect your supervisor depending on the tone or sarcasm intended or not intended. It also can make you feel worthless as a student. This must be sorted out promptly because you need to have a good working relationship moving forward.

Similar to Jose's experience, Jo, a student in Young's (2000) study expressed a sentiment that "if they [teachers] say anything derogatory about your work, it's absolutely annihilating" (p.412). Wang and Li (2009) and Lee (2007) claimed that feedback is embedded in supervisory relationships. Jose's statement highlights some of the factors that can

impact negatively on this relationship. Wang and Li (2009) suggest that attention should be paid to the way in which feedback is given and received, as it might create a different relationship between supervisor and student. Yusuf (2011) recommends that supervisors should weigh their feedback choices carefully, as this can help students navigate the thesis-writing path and shed their negative attitudes. Jones, Hoppitt, James and others (2012) contend that demotivating feedback is likely to hinder learning. Evidently, disparaging feedback can potentially damage supervisor-supervisee relationships and adversely affect students' progress, success and self-actualisation. Hence, supervisors should find ways of presenting feedback sensitively, as this might motivate rather than discourage students.

Frustration

There was a general consensus among students that inconsistent feedback created challenges regarding progress. Feedback inconsistency took two different forms: conflicting feedback and irregular/infrequent feedback. Mlungisi explained his experiences thus:

> Feedback from my supervisor is never the same as the previous one given. Conflicting feedback is frustrating because it delays your progress as you have to keep on working on the same chapter again and again without progress.

The challenge of inconsistent feedback is not new in postgraduate research conducted in South Africa. Students in Wadesango and Machingambi's (2011) study also made reference to it. Inconsistent feedback can frustrate and delay students' progress, which could result in drop-outs, lack of motivation and delayed completion. It can also widen rather than close the gap in the students' ZPD, thus stunting their cognitive development. Therefore, supervisors should be consistent with their feedback and avoid chopping and changing. If and when new issues arise as students progress, supervisors can explain to guide the to resolve those issues. Inconsistent feedback could also signal a supervisor's lack of conceptual knowledge and supervisory skills. This makes it necessary and wise for novice supervisors to be paired with and coached by experienced supervisors. Winberg (2006) proposes Mode 2 knowledge production or trans-disciplinarity, which includes a wider, heterogeneous set of practitioners from different disciplines collaboratively supervising a student in a specific discipline. This model is inter- and trans-disciplinary, allowing supervisors with diverse skills and knowledge to transfer these to the student. Therefore, students'

research is not restricted to their disciplines, but they (students) can navigate different disciplines with ease.

The other form of inconsistency pertains to infrequent feedback. Slightly more than a third (36%) of the students cited lack of commitment by supervisors to provide regular feedback as a common implement to their prgresszz. They reported to have suffered with regard to making progress, staying connected with their work and utilizing feedback, as explained by Sebena below:

> With my previous supervisor feedback was always outdated because I used to wait from her anything between 4-6 months before she responded to info that I sent to her. By the time I received it, it was too late and I did not know where to fit it in or how to use it. So I simply ignored it. As a result, I lost track of my study and lacked enthusiasm. Consequently, I wrote my proposal for two years due to the long periods of waiting before she would respond.

Like Sebena, Martin seemed to have experienced setbacks due to late feedback:

> Tardy feedback has a devastating effect because the longer I wait, the more anxious I get. It is not in the best interest of the student to wait long for feedback. It makes you feel frustrated. You waste a lot of time waiting where one could have progressed faster had the feedback been sent earlier.

One of the factors that Kamper (2004: 234) cited as compromising the quality of educational research in South Africa was "unavailable (often absent) supervisors", which is the case in the two cases above. Failure to provide regular feedback might have serious ramifications for students' emotional well-being and progress, as they may lose momentum and take longer to complete their theses. Wang and Li (2009: 444) advocate for constant intellectual and academic exchanges between supervisors and students, so that students can receive input and guidance about their progress. In a study on students' views of supervision, Heath (2002) recommend that supervisors should set time aside to meet with students regularly, and that the students should contact them through media such as email and phone. While these media are readily available, they cannot replace physical contact needed in the supervision encounter between supervisors and supervisees. Therefore, physical and virtual contact should be negotiated between the two parties in order to optimise the benefits derived from feedback.

Closely linked to inconsistent feedback were supervisor-supervisee meetings that students perceived as resulting in useless feedback. While more than half (58%) of the students felt that regular meetings with their supervisors enlightened them on the aspect of thesis that needed attention, about a third (35%) of them felt that these meetings were fruitless, a feeling expressed by Monica:

> I have regular meetings with my supervisors to get verbal feedback but most of it is useless and a waste of my time. This feedback could be written down in an email, or track changes could be provided.

Monica's utterance raises concerns; as supervisor-supervisee meetings are supposed to provide students with an opportunity to engage in a dialogue with their supervisors in order to clarify any misconceptions contained in the written feedback. Supervisors should plan and prepare thoroughly for these meetings by highlighting the areas that need to be clarified verbally.

Conclusion

In this study, students reported that supervisors' formative feedback had effects on them psychologically, emotionally, and cognitively. These effects have serious implications for the manner in which supervisors provide formative feedback, as they can encourage or discourage students from continuing with their theses. Supervisors' awareness of the effects of feedback on students is important. If formative feedback is important for postgraduate learning, it should be provided in a manner that facilitates rather than inhibits this process. Therefore, supervisors should guide and coach (scaffold) students with constructive feedback that facilitates students' growth and development as researchers.

This study also demonstrated that supervisors' and students' expectations of formative feedback were incompatible. This conflict was evident in the statements of those students with negative perceptions of feedback, implying that some students' feedback expectations were met and others' were not met (see also Sambrook et al. 2008). Therefore, supervisors and supervisees should negotiate consensus regarding conflicting feedback that surfaces while students are writing their theses. In light of these findings, it might be possible that students obtain different growth and developmental opportunities, depending on the type of feedback they receive and how it was presented to them. It is possible that if supervisors provide it with respect and compassion, albeit rigorously, students might develop and grow fully as researchers.

This study, although small in scale and scope, has shed light on the type of feedback and the manner in which students would like to receive it. Its results have serious implications for postgraduate supervision and formative-feedback provision. This study should be replicated with a bigger sample in a different setting in order to increase the generaliseability of these results. Effects of supervisors' formative feedback should also be investigated from the perspectives of supervisors to eliminate any bias that may exist in this study's findings.

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